

*CASE
PROBLEMS
IN
FINANCE*

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Case Problems in Finance

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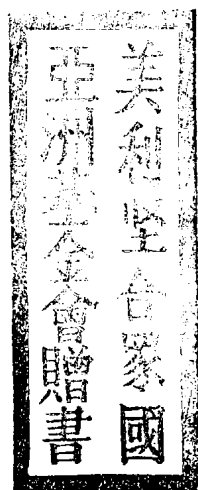
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Case material of the Harvard Graduate School of Business Administration is made possible by the cooperation of business firms who may wish to remain anonymous by having names, quantities, and other identifying details disguised while basic relationships are maintained. Cases are prepared as the basis for class discussion rather than to illustrate either effective or ineffective handling of administrative situations.

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Cases in this edition, or prior versions of these cases, were written or supervised by 19 members, or former members, of the faculty of the Harvard University Graduate School of Business Administration. Two cases were written or coauthored by James T. S. Porterfield and John G. McDonald, members of the faculty of the Stanford University Graduate School of Business. Most of the cases appearing for the first time in this edition were written by one of the editors of this volume.

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The editors assume full responsibility for the contents of this edition, but they are keenly aware of their obligation to their predecessors and associates.

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Introduction

Many readers may be meeting the case method of instruction for the first time. More often than not the experience is a frustrating one, for cases typically end at the critical point—in the words of some, “just when they seem to be getting some place.” At that point the reader is left to make her/his own way. It may be helpful, therefore, to know from the outset what case problems are and what advantages we believe can be gained from their use.

The heart of the case method of instruction is the use of problems to train the student to discover, and then to fix in her/his mind, *ways of thinking that are productive in the subject area*. Appropriate use of theory and the acquisition of factual material and procedural skills are also important goals, but the main objective is an ability to handle different types of managerial problems intelligently.

The word *decisional* is sometimes used to contrast the case method with *expository* teaching. The reader will find, for example, that most of the cases in this book are essentially descriptions of actual business situations. The facts are those which were known to some executive; in total they present an immediate financial problem which that person had to decide. Some cases emphasize the preliminaries of decision making—the difficulty of isolating and defining the crucial problem or of determining whether enough information is at hand to make an intelligent decision. The great majority of cases, however, are “issue” cases; these present reasonable alternative courses of action which might have been followed in the given situation. Sufficient information is given for the reader to place himself or herself in the executive’s position. From this vantage point the student is challenged to analyze the problem and to decide upon the course of action to be taken.

The cases themselves depict a wide variety of financial problems and business situations. Reference to the Table of Contents will show that problems have been drawn from most of the major areas covered in financial courses. Cases have been selected from a wide variety of industries and from different time periods. Cases are also included which illustrate different phases in the life cycle of business firms and problems of cyclical decline as well as of prosperity.

Twenty-four of the 47 cases and notes in this edition are new. Of these 24 cases and notes, 18 are completely new cases, 4 are completely new notes, and 2 are updates of cases from the Seventh Edition. These changes result in the inclusion of more cases in which inflation is a major consideration. A number of the new cases also involves national settings other than the United States.

Three new notes discuss specific aspects of capital market theory. The note on the theory of optimal capital structure presents a concrete, numerical example of the determination of optimal debt ratios. The note on the capital asset pricing model (CAPM) is a concise description of the basic tenets of the theory and illustrates its application to the task of estimating the cost of equity capital. In the note on financial leverage and CAPM, the impact of financial leverage on betas and costs of equity is explored. The objective of these notes is to facilitate the application of these concepts with simple, concrete presentations. Many of the cases provide opportunities for the application of these techniques to managerial problems. More extensive treatment of underlying theory, its derivation, extensions and limitations, is presented in several recent finance texts.

Inevitably, some instructors will find that some of their favorite cases have been omitted in this edition. The editors share this feeling. If an instructor is especially eager to continue to use one or more of the cases dropped from the Seventh Edition, they can be ordered separately from the Intercollegiate Case Clearing House, Soldiers Field Post Office, Boston, Massachusetts 02163.

No major changes have been made in the basic structure of the book. The effort rather has been to improve its overall quality by weeding out old, outdated cases and substituting more timely material. In our judgment, Part I of the Seventh Edition consisted of well-tested cases that provided a very teachable sequence of material offering a good opportunity for drill on fundamental techniques of analysis. Several of the cases, however, had been impaired by the fact that they were badly dated. They have been replaced by two new cases. Hampton Machine Tool Company provides a useful drill in the fundamentals of financial forecasting, particularly including emphasis on the interlocking character of consistently constructed forecasts. It replaces the Sprague Machine Tool Company case. Carrefour, S.A. replaces the old Koehring Company case and relates trade credit strategy and corporate strategy. Lastly, "The Case of the Unidentified Industries" has been revised and incorporated in a note and programmed text on "Assessing the Financial Health of a Firm."

Part II of the book has been changed substantially. The three new technical notes on capital market theory represent a major addition. Revisions in several of the cases from the Seventh Edition and the inclusion of a new case, Communications Satellite Corporation, provide interesting opportunities to apply the theory to actual situations. Five other new cases have been added to this section. Two of them, Georgia Power Company and Systems Engineering Laboratories, Inc., explore the rapid shifts in the appetite of the public bond market for debt of various ratings. Chinon, S.A. raises the issue of estimating the adequacy of financial reserves for a highly cyclical company. The Digi Terminal case provides an opportunity to discuss bankruptcy and reorganization. And the case on Consolidated Edison's dividend decision in 1974 replaces the old Winn-Dixie Stores case.

The section on investment decisions, mergers, and acquisitions has been expanded to include three new cases on industry and competitive analysis, as

well as a case on capital budgeting in a multinational context. We have also decided with some regret to replace an old favorite, Economy Shipping Company, with two new cases, Evaluation of Investment Alternatives and Pressco, Inc. A new acquisition case, Kennecott Copper Corporation, has been included to allow students to use modern financial theory to value an acquisition.

All of these cases are designed to provide a basis for class discussion; as such they are not intended to present either correct or incorrect illustrations of the solution of management problems. It need hardly be added that the discussion which they provoke will move along more realistic lines if students also have a standard finance text or reference book available and use it freely for background information not provided by this casebook. In addition, students will need to acquire proficiency in a number of analytical techniques useful in handling the quantitative aspects of cases.

Case problems confront students with the necessity of making decisions, and this is perhaps their greatest value. The student cannot stop with an understanding of the facts and a listing of items that deserve consideration. Mastery of these matters is merely the jumping-off point for class discussion. To be effective, the student must actually think the problem through to a decision, explain her/his analysis to her/his classmates, and defend it against their ideas. The need to choose among balanced alternatives and to discuss the decision intelligently is a great force in learning. It helps to provide that elusive quality of judgment that is often missed when learning is restricted to memorization of fact and views which others have codified.

Since the cases present business situations that pose debatable alternatives of action, they contain problems which can be narrowed but not settled by the usual techniques of financial analysis. Judgment must enter into the process of decision making, and therefore unanimous agreement as to the best decision is neither an expected nor a desired result of class meetings. This end result also contributes to the initial frustration of many students who have been working with scientific and technical problems; in the beginning phases of study in these areas a mechanistic approach can usually be counted on to yield a single "right" conclusion.

In developing a logical approach toward case problems, the reader should not overlook intangible human factors. The choice between financial alternatives in many, if not all, of the cases depends in part upon the principal's disposition for risk taking and other matters of judgment and taste.

In some instances, work with cases may require more of the student's time than would normal textbook reading assignments; however, the satisfaction of handling problems that bridge the gap between classroom study and business action, and the zest of independent thinking are usually adequate recompense for any extra time employed.

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Part I

financing current operations

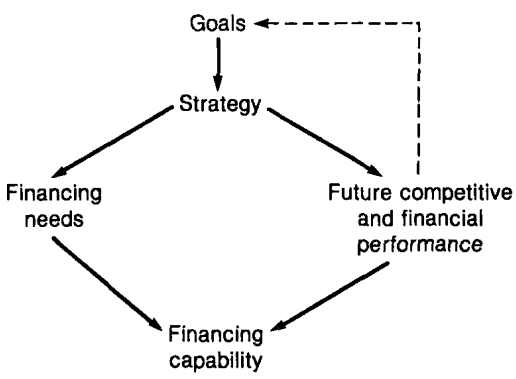
ASSESSING THE FINANCIAL HEALTH OF A FIRM

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An assessment of the long-term financial health of a company is an important task for outsiders considering the extension of credit and for insiders in their formulation of strategy. History abounds with examples of firms that embarked upon overly ambitious programs and subsequently discovered that their portfolio of programs could not be financed on acceptable terms. The outcome frequently was the abandonment of programs in midstream at considerable financial and organizational cost to the company, its vendors, its employees, and/or its creditors.

A necessary first step in the evaluation of a firm's financial health is the development of a comprehensive series of questions. It is possible to calculate a multitude of ratios, but unless they relate to specific questions and concerns, their usefulness will be minimal. Furthermore, unless one starts with a clear understanding of the right questions, one's analysis will inevitably be determined by whatever information is readily available.

The following represents some of the questions that seem important in assessing the future financial health of a company. The key issue is whether or not the company's goals, strategy, investment requirements, and financing capabilities are in balance.

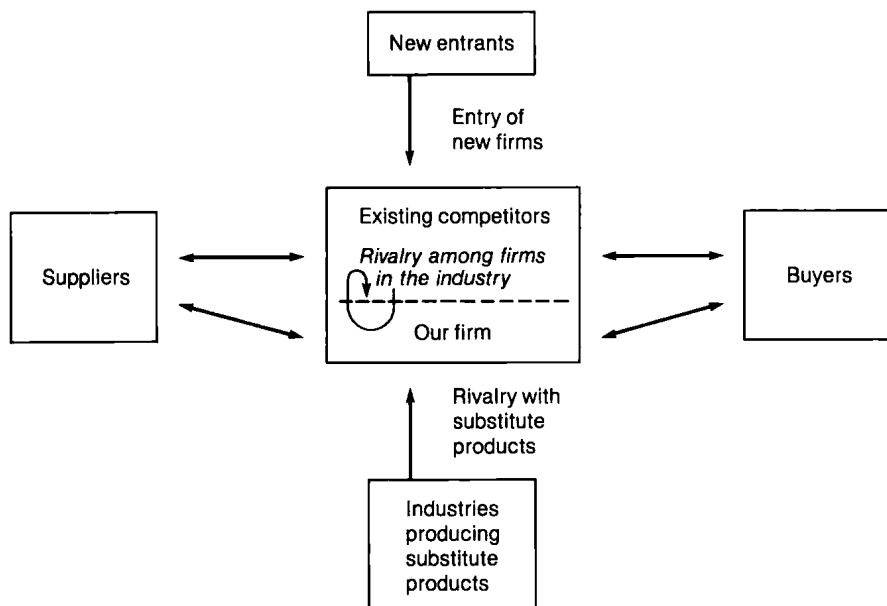


1. Will the company need to raise additional finance over the next year/ over the next three to five years to carry out strategically important programs? *What are management's goals for the company? How does it*

*plan to reach these goals? What investments must be made in working capital and in plant and equipment to support the programs? Will the company be a generator of excess cash, or will it be a consumer of cash? How important is its future access to finance from outsiders?*

- a. Does the company have a seasonal financing need? If so, how large is it and what will be the perceptions of suppliers of finance at the time of the need?
- b. Might the company have a cyclical financing need? If so, how large might it be and what will be the perceptions of suppliers of finance at the time of the need?
- c. Does the company have a long-term need for additional finance? If so, how large is it and what will be the perceptions of suppliers of finance at the time of the need?
2. Is the company profitable? (Future profitability is one of the keys to raising finance.)
  - a. What are the underlying financial accounting practices? For example, are all subsidiaries consolidated? What lives have been assumed for depreciation purposes?
  - b. What is the trend in profitability? Is the improvement due to:
    - (1) Short-lived supply shortages?
    - (2) Opportunistic changes in financial accounting?
    - (3) Cyclical factors?
    - (4) Curtailment of strategically important expenses?
  - c. Is the return on equity high/low/average due to:
    - (1) Its operating margins?
    - (2) Its asset utilization?
    - (3) Its financing mix?
  - d. Is the level of profitability sustainable, *given the outlook for the market and for competitive and regulatory pressures?*
  - e. Are the earnings available to corporate or are they blocked in other countries?
3. Are there any "hidden" problems?
  - a. Suspiciously large levels and/or buildups of accounts receivable or inventories relative to sales, *given the competitive and operating characteristics of the business?* What is the historical trend in collection period, inventory stockturn? Do the absolute levels seem reasonable?
  - b. Unconsolidated subsidiaries with high debt levels?
  - c. Large contingent liabilities or unfunded pension liabilities or uncompleted contracts?
  - d. Lease commitments not shown on balance sheet?
4. How soundly is the company financed, given its riskiness *and* its future need for additional finance?
  - a. What is the maturity structure of the company's debt? Is it faced with large debt repayments in the near future?

## SOURCES OF DOWNWARD PRESSURE ON ABOVE-MARKET RETURNS



- b. How current is the company in the payment of its suppliers?
- c. What is the foreign exchange exposure of the company?
- d. Is the company close to its borrowing limit in terms of restrictive covenants?
- e. Is the company within its capacity to service the debt?
  - (1) Will it service the debt by paying the interest and principal out of internal cash flow?
  - (2) Will it service existing debt by selling new debt?
5. Does the company have assured access on acceptable terms to external sources of funds in amounts needed to meet its seasonal/cyclical/long-term needs?
  - a. Can the company raise equity funds?
    - (1) Is there a market for the shares?
    - (2) How many shares could be sold?
    - (3) At what price could the shares be sold?
    - (4) To whom would new shares be sold?
    - (5) Would management be willing to sell equity?
      - (a) Concern about control?
      - (b) Concern about impact on earnings per share and dividends per share?
  - b. Can the company raise long-term debt?
    - (1) Who are the possible suppliers?

- (2) What are their criteria for lending?
- (3) How well does the company meet these criteria?
- (4) How much additional long-term debt can the company raise?  
On what conditions? At what price? How quickly?
- c. Can the company raise short-term debt?
- d. How well will the financing plan work if adversity strikes?
- e. Does the company have assets that could be sold to raise funds?  
How quickly could they be sold?
6. Are the company's goals, product-market choices and strategies, investment requirements, financing needs, and financing capabilities in balance?
7. Will the company's goals, strategies, investment requirements, financing needs, and financing capabilities remain in balance if the firm is struck by adversity?
  - a. What are the main regulatory, competitive, and operating risks?  
What combination of them might reasonably be expected to occur?
  - b. How would management respond in strategic and operating terms?
  - c. What would the implications be for future financing needs? For future financial performance?
  - d. Will it be possible to raise the finance needed on acceptable terms, given the perceptions of suppliers of finance and of the firm's strategic, competitive, and financial performance?

