Financial Management

SECOND EDITION

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Dedicated to

With great love and affection, for sacrifice of their invaluable personal time they
are entitled to, providing all encouragement and support and bearing with me, my dear wife

Mrs Anita Srivastava

and

two lovely daughters

Juhi and Shruti

Rajiv Srivastava

With respect to the medium of my worldly manifestation and the foundations of my value system,
my father

Prof. D. P. Mishra

and mother

Mrs Renu Mishra

Anil Misra

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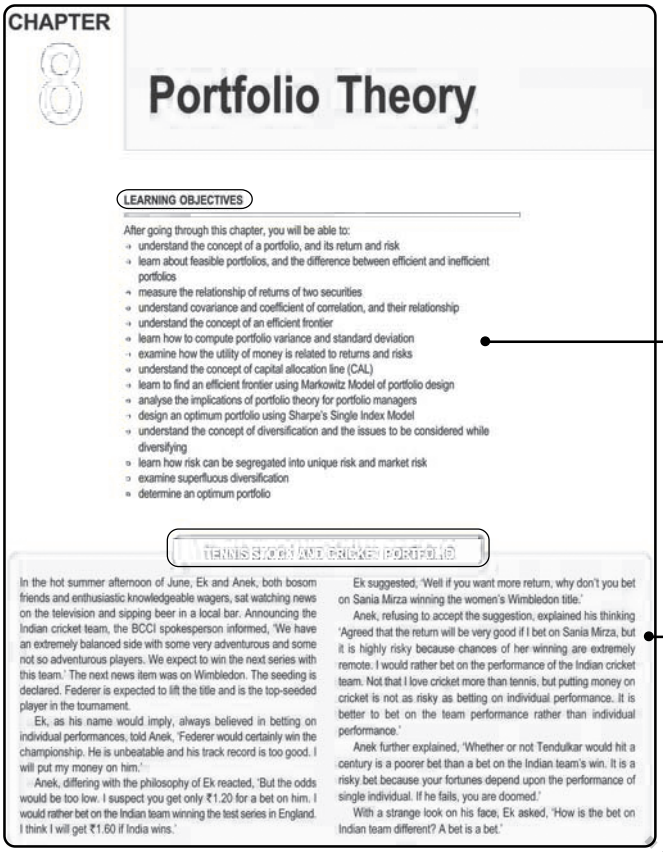
Features of



CHAPTER 8

Portfolio Theory

LEARNING OBJECTIVES

After going through this chapter, you will be able to:

- understand the concept of a portfolio, and its return and risk
- learn about feasible portfolios, and the difference between efficient and inefficient portfolios
- measure the relationship of returns of two securities
- understand covariance and coefficient of correlation, and their relationship
- understand the concept of an efficient frontier
- learn how to compute portfolio variance and standard deviation
- examine how the utility of money is related to returns and risks
- understand the concept of capital allocation line (CAL)
- learn to find an efficient frontier using Markowitz Model of portfolio design
- analyse the implications of portfolio theory for portfolio managers
- design an optimum portfolio using Sharpe's Single Index Model
- understand the concept of diversification and the issues to be considered while diversifying
- learn how risk can be segregated into unique risk and market risk
- examine superfluous diversification
- determine an optimum portfolio

TENNIS STARS AND BRIDGE PORTFOLIO

In the hot summer afternoon of June, Ek and Anek, both bosom friends and enthusiastic knowledgeable wagers, sat watching news on the television and sipping beer in a local bar. Announcing the Indian cricket team, the BCCI spokesperson informed, 'We have an extremely balanced side with some very adventurous and some not so adventurous players. We expect to win the next series with this team.' The next news item was on Wimbledon. The seeding is declared. Federer is expected to lift the title and is the top-seeded player in the tournament.

Ek, as his name would imply, always believed in betting on individual performances, told Anek, 'Federer would certainly win the championship. He is unbeatable and his track record is too good. I will put my money on him.'

Anek, differing with the philosophy of Ek reacted, 'But the odds would be too low. I suspect you get only ₹1.20 for a bet on him. I would rather bet on the Indian team winning the test series in England. I think I will get ₹1.60 if India wins.'

Ek suggested, 'Well if you want more return, why don't you bet on Sania Mirza winning the women's Wimbledon title.'

Anek, refusing to accept the suggestion, explained his thinking 'Agreed that the return will be very good if I bet on Sania Mirza, but it is highly risky because chances of her winning are extremely remote. I would rather bet on the performance of the Indian cricket team. Not that I love cricket more than tennis, but putting money on cricket is not as risky as betting on individual performance. It is better to bet on the team performance rather than individual performance.'

Anek further explained, 'Whether or not Tendulkar would hit a century is a poorer bet than a bet on the Indian team's win. It is a risky bet because your fortunes depend upon the performance of single individual. If he fails, you are doomed.'

With a strange look on his face, Ek asked, 'How is the bet on Indian team different? A bet is a bet.'

Each chapter begins with learning objectives that focus learning and the knowledge you should acquire by the end of the chapter.

Each chapter starts with an opening case to introduce you with the theme of the chapter.

Box 20.2 Tata Steel Issues Perpetual Bonds

Tata Steel, the world's seventh-largest steel maker has made the debt market and probably the equity investors sit up with a very interesting perpetual bond product. Tata Steel has boasted about raising ₹1,500 crore through these high-yield perpetual bonds.

Perpetual bonds means the issue has no maturity period, and only the company has the option to buy-back the bonds at any time it chooses. Tata Steel has listed this bond in the wholesale debt market and expects it to fetch an interest of 11.8% per annum.

In an interview with CNBC-TV18's Latha Venkatesh, Koushik Chatterjee, Group CFO of Tata Steel, said that the company wanted to come up with a product which captures the essence of equity at a lower cost than equity cost and gives a higher yield to the investors. 'We started working on a product which meets the legal requirement, the regulatory framework and the accounting disclosure issues and this is what we have arrived at,' he said.

According to him, this product will fetch benefits to investors from the insurance companies and pension funds, who have long-term asset liability requirements to match. He also said that perpetual bond issue helps funding sources and this bond is lesser expensive compared to equity.

'Appetite for this bond should be high. It is an important product for companies with value-accretive investments,' added Chatterjee.

Talking about the tenure of the product, he said that technically it has a tenure of 10 years but it doesn't create obligation on the issuer to repay the distribution cost.

JP Morgan Securities India and ICICI Bank were the arrangers for the issue.

Source: www.moneycontrol.com accessed on 25 March 2011

Boxes reflect industry and business trends that are relevant to financial decision-making.

Example 4-3 Implied Interest Rate

A finance firm has announced a scheme called 'Lakhpati in 10 years'. It has promised to pay ₹1,00,000 after 10 years for every ₹20,000 deposited today. The advertisement states that the firm pays ₹80,000 as interest at ₹8,000 every year and therefore offers a 40% annual return. Do you agree with the claim made in the scheme? Explain. What would be the maturity value if the finance firm really had to offer 40% return annually?

Solution

The claim made by the finance company is simply erroneous as it ignores the time value of money. The real rate of return offered by the finance company can be calculated using Equation 4-1:

$$20{,}000 \times (1 + r)^{10} = 1{,}00{,}000$$

or, $$(1 + r)^{10} = 5$$

Using the Table given in Appendix A-1 for a period of 10 years and looking for value of 5, we find the future value factors of 4.807 and 5.234 at 17% and 18% respectively. By linear extrapolation we may arrive at the approximate rate of return of 17.45% $\left(17\% + \frac{5.000 - 4.807}{5.234 - 4.807}\right)$.

For a more exact answer, we may solve Equation 4-1 for r

$$r = 5^{1/10} - 1 = 17.46\%$$

If the firm really had to offer the 40% return for every ₹20,000 deposited today, it would be required to pay ₹5,78,500 (Using table in Appendix A-1).

$$20{,}000 \times 1.4^{10} = 20{,}000 \times 28.925 = ₹5{,}78{,}500$$

DISCOUNTING AND PRESENT VALUE

The inverse of the compounding process is termed as *discounting*. Here we find the value of future cash flow as on today. We know that the future value (F) is given by Equation 4-1. By restating Equation 4-1 we may find the present value as given by Equation 4-2.

Effect of discounting is more pronounced as the time extends or as the discount rate increases.

$$P = \frac{F}{(1+r)^n} \qquad (4\text{-}2)$$

Factor of $1/(1 + r)^n$ is known as present value discount factor at interest rate of r for n period, and is denoted as PVDIDF(r,n). A

Numerous solved examples interspersed throughout the text will help you to further understand the concepts discussed in the text.

Important concepts appear as sidebars throughout the text for quick recapitulation. This will come handy for revision before exams.

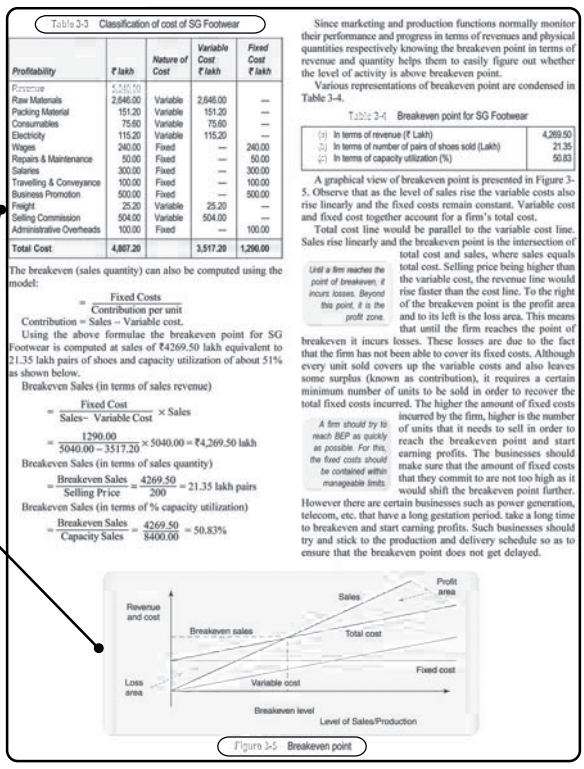


Table 3-3 Classification of cost of SG Footwear

Profitability	₹ lakh	Nature of Cost	Variable Cost ₹ lakh	Fixed Cost ₹ lakh
Revenue	4,640.50			
Raw Materials	2,646.00	Variable	2,646.00	—
Packing Material	151.20	Variable	151.20	—
Consumables	75.60	Variable	75.60	—
Electricity	115.20	Variable	115.20	—
Wages	240.00	Fixed	—	240.00
Repairs & Maintenance	50.00	Fixed	—	50.00
Salaries	300.00	Fixed	—	300.00
Travelling & Conveyance	100.00	Fixed	—	100.00
Business Promotion	500.00	Fixed	—	500.00
Freight	25.20	Variable	25.20	—
Selling Commission	504.00	Variable	504.00	—
Administrative Overheads	100.00	Fixed	—	100.00
Total Cost	**4,807.20**		**3,517.20**	**1,290.00**

The breakeven (sales quantity) can also be computed using the model:

$$= \frac{\text{Fixed Costs}}{\text{Contribution per unit}}$$

Contribution = Sales – Variable cost.

Using the above formulae the breakeven point for SG Footwear is computed at sales of ₹4269.50 lakh equivalent to 21.35 lakh pairs of shoes and capacity utilization of about 51% as shown below.

Breakeven Sales (in terms of sales revenue)

$$= \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} \times \text{Sales}$$

$$= \frac{1290.00}{5040.00 - 3517.20} \times 5040.00 = ₹4{,}269.50 \text{ lakh}$$

Breakeven Sales (in terms of sales quantity)

$$= \frac{\text{Breakeven Sales}}{\text{Selling Price}} = \frac{4269.50}{200} = 21.35 \text{ lakh pairs}$$

Breakeven Sales (in terms of % capacity utilization)

$$= \frac{\text{Breakeven Sales}}{\text{Capacity Sales}} = \frac{4269.50}{8400.00} = 50.83\%$$

Since marketing and production functions normally monitor their performance and progress in terms of revenues and physical quantities respectively knowing the breakeven point in terms of revenue and quantity helps them to easily figure out whether the level of activity is above breakeven point.

Various representations of breakeven point are condensed in Table 3-4.

Table 3-4 Breakeven point for SG Footwear

(a) In terms of revenue (₹ Lakh)	4,269.50
(b) In terms of number of pairs of shoes sold (Lakh)	21.35
(c) In terms of capacity utilization (%)	50.83

A graphical view of breakeven point is presented in Figure 3-5. Observe that as the level of sales rise the variable costs also rise linearly and the fixed costs remain constant. Variable cost and fixed cost together account for a firm's total cost.

Total cost line would be parallel to the variable cost line. Sales rise linearly and the breakeven point is the intersection of total cost and sales, where sales equals total cost. Selling price being higher than the variable cost, the revenue line would rise faster than the cost line. To the right of the breakeven point is the profit area and to its left is the loss area. This means that until the firm reaches the point of breakeven it incurs losses. These losses are due to the fact that the firm has not been able to cover its fixed costs. Although every unit sold covers up the variable costs and also leaves some surplus (known as contribution), it requires a certain minimum number of units to be sold in order to recover the total fixed costs incurred. The higher the amount of fixed costs incurred by the firm, higher is the number of units that it needs to sell in order to reach the breakeven point and start earning profits. The businesses should make sure that the amount of fixed costs that they commit to are not too high as it would shift the breakeven point further. However there are certain businesses such as power generation, telecom, etc. that have a long gestation period. take a long time to breakeven and start earning profits. Such businesses should try and stick to the production and delivery schedule so as to ensure that the breakeven point does not get delayed.

Until a firm reaches the point of breakeven, it incurs losses. Beyond this point, it is the profit zone.

A firm should try to reach BEP as quickly as possible. For this, the fixed costs should be contained within manageable limits.

Figure 3-5 Breakeven point

All chapters contain figures and tables to illustrate the topics discussed in the chapter.

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the Book

EXERCISES

Concept Review Questions

1. Why do firms invest in inventory? What are the benefits from the investment in inventory? What are the costs of investing in inventory?
2. Distinguish between the economic order quantity and the just-in-time inventory models of inventory management.
3. What are carrying costs and ordering costs and how are they important in inventory management?
4. What is the reorder point and how is it relevant to inventory management? What is the role of safety stock in the determination of reorder point?

Critical Thinking Questions

1. Where inventory occupies a prominent position in business operations, it will usually play a key role in deciding the success of the venture. Comment.
2. Compare and contrast the motives for holding cash and inventory. What are the similarities and differences in these motives?
3. 'Inventory provides cushion against demand side and supply side uncertainties.' Comment.
4. 'The inventory policy of a firm is intricately linked with the overall corporate strategy.' Discuss.
5. 'Although the proportion of the different components of inventories is industry-specific, its importance is universal.' Elaborate.
6. 'Alteration in the level of inventory is justified only if the expected rate of return on incremental investments in inventory exceeds the cost of funds blocked in them.' Examine.

Practical Assignments

1. Select a manufacturing company of your choice and study the inventory holding pattern of the company, using the inventory turnover ratio (or the inventory holding period). Based on these measures, compare the inventory management trend with other companies in the industry.
   If the inventory turnover of the firm has improved, find out the measures taken by the firm that have facilitated the improvement in the inventory management. Are these measures similar to those adopted by MUL in the case study?
2. Select a manufacturing sector of your choice. Based on the sample of the prominent firms falling in the sector do the value chain mapping of the sector so as to find out whether the sector has moved up the value chain during the past 5–7 years or not.
   (Hint: one of the possible ways could be studying the inventory level and composition over the period and also vis-à-vis the competitors). If there has been upscaling, find out the ways the firm has been able to move downstream.

Numerical Problems

1. Determining the EOQ

A unit manufacturing bangle containers consumes 17,500 units of plastic fibres every month. The material is consumed uniformly throughout the month. Based on the data available, the current per unit cost of acquisition is ₹55 and the carrying cost for the firm is 35% on an average, and the

Each chapter contains a series of concept review, critical thinking, and project assignments that highlight the major topics covered in the chapter. The questions enhance learning and can be used for review and

Each chapter ends with a case study that is designed to consolidate your understanding of the chapter subject and broaden your financial decision-making skills.

CASE STUDY

Maruti Udyog Limited (MUL)-II*

Inventory Management at MUL

With raw material consumption cost (including the cost of raw material stores and spares) as a percentage of net sales ranging from 75–83%, the management of inventory for the firm has always assumed importance from the viewpoint of operational efficiency, and also the bottom line of the firm. Around 70% of the firm's components are outsourced. Inventory management, therefore, plays a key role in the company's operations. The average inventory turnover ratio of the company has increased from 11.9 in 2005–06 to 13.9 in 2006–07. In the light of the significant importance of inventory, the firm has been paying special attention to its inventory management. The inventory management performance at MUL for six consecutive financial years is given in Table A.

Table A Inventory management performance at MUL

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Net Sales (₹ crore)	70677.00	71265.00	93456.00	109108.00	120034.00	145922.00
Average Stock of raw materials (₹ crore)	477.00	317.85	246.15	269.00	296.30	315.35
Average Stock of stores and spares (₹ crore)	123.10	69.70	47.70	51.05	50.10	23.70
Average Stock of semi-finished goods (₹ crore)	28.80	22.70	19.15	33.85	37.35	27.85
Average Stock of finished goods (₹ crore)	144.40	173.80	150.40	199.30	390.15	430.30
Average days of raw materials stock	38.52	25.45	16.10	14.04	14.14	12.00
Average days of finished goods stock	7.38	8.76	6.38	7.37	13.34	12.29
Average days of semi-finished goods stock	1.56	1.28	0.85	1.29	1.29	0.85

Source: Prowess database of Centre for Monitoring of Indian Economy, India.

Solved examples which will help you understand the concepts well and give you adequate practice before you start solving the various exercises given at the end of the chapters.

PRACTICE PROBLEMS

1. Determining the Economic Order Quantity

A unit manufacturing electronic meters consumes 20,000 units of moulded steel boxes every month. The material is consumed at an uniform rate during the month. The cost of acquiring the inputs is ₹100 per month for the firm and the carrying cost for the firm is 27.5% on an average. The acquisition cost is likely to remain constant in the near future. The cost of placing an order is ₹50,000 per order. Compute the optimal inventory for the year ahead using EOQ model.

Solution

Annual demand $D = 20,000 \times 12 = 2,40,000$
Ordering cost $O = ₹50,000$
Carrying cost $C = ₹27.5$ (27.5% of acquisition cost of ₹100)

$$EOQ(Q) = \sqrt{\frac{2 \times D \times O}{C}}$$

$$= \sqrt{\frac{2 \times 2,40,000 \times 50,000}{27.5}} = 29,542 \text{ units}$$

2. Incorporating Quantity Discount in the Basic EOQ Model

Spring Enterprises require 30,000 units of inputs annually to sustain its production at the current level. The carrying cost is ₹32 per unit while the ordering cost is ₹5,000 per order. The cost per unit of input is also ₹32.

Determine the EOQ for Spring Enterprises. What would be the firm's policy of inventory acquisition if the firm's suppliers offer quantity discount as follows:

Order Size (Units)	Discount (%)
1000–3999	0.00
4000–7999	1.00
8000–11999	1.25
12000–15999	2.00
16000 and above	3.00

Solution

Demand $D = 30,000$ units
Ordering cost $O = ₹5,000$
Carrying cost $C = ₹32$

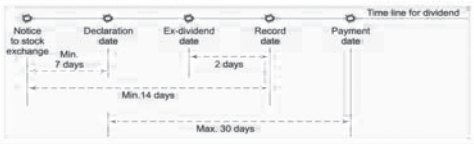
Exhibits analyse the financial tools/concepts discussed in the text.

Declaration date: Dividends are declared in a meeting of the Board of Directors that needs to be notified to stock exchanges at least seven days in advance. The date on which the directors of the company declare dividend is called the *dividend declaration date*.

Record date: The *record date* is the date on which all those shareholders whose names are on the books of the firm are paid dividend. It is announced on the date of declaration of dividend. This date needs to follow notice of duration of a minimum of 15 days to stock exchanges. The company closes its stock transfer book on this date.

Ex-dividend date: The *ex-dividend date* is the date on which prices on stock exchanges are adjusted for the amount of dividend. All buyers prior to this date get the dividend. This is normally a day before the record date, to enable the company to update its stock transfer book.

Payment date: The *payment date* is the date of actual payment of the dividend. The payment date has to be within 30 days of the declaration date.



The summary at the end of each chapter draws together the main concepts discussed within the chapter. This will help you to reflect and evaluate important concepts

SUMMARY

The total costs incurred do not vary proportionately with the level of activity as some part of total costs is fixed in nature. Such fixed costs refer to such components of costs that remain constant with the changing activity level. They are alternatively referred to as period costs as they change with time and not with volume. Rent, salaries, etc., are examples of fixed costs. These costs remain fixed only within a relevant range of production/sales. The moment the volume increases and crosses this relevant range, there is a sudden increase in such costs.

The costs that vary in direct proportion to the change in the volume are termed as variable costs. Due to the feature of variability with the activity level (level of volume or production) such costs are also referred to as product costs. Cost of raw materials, power, and fuel are some of the prominent examples of variable costs.

There is a third category of costs termed as semi-variable costs. These are the combination of variable and fixed costs. These costs are also referred to as mixed costs. The examples of semi-variable costs include repairs and maintenance, salaries paid to the supervisors, etc. This understanding of costs concept and its behaviour is important from the viewpoint of profit planning and cost management and control.

CVP analysis determines the relationship between cost, volume, and profit. Such an analysis aids in certain key financial decisions. Breakeven point is the most significant techniques in CVP analysis. Breakeven point refers to a point of no profit, no loss. It is that level of sales where firm's revenues are equal to its total costs. Until a firm reaches the point of breakeven, it incurs losses. If the sales of a firm are rightwards of the breakeven point the firm is said to be operating in the profit zone. A firm should try to reach breakeven point as quickly as possible. To achieve this, fixed costs should be contained within manageable limits.

The difference between the actual sales and the sales at breakeven point is termed as the margin of safety. It measures the cushion available to firms against the decline in volume (sales). The higher the margin of safety, the better it is for the business. In order to have a high safety margin, the firm should cut down its fixed costs, volumes remaining the same.

Breakeven analysis, though very useful in decision-making, is sometimes criticized for its unrealistic assumptions that may not hold well in the real life. The analysis is based on the assumption of constant selling price, fixed costs, per unit variable costs, and product mix. These assumptions of constancy are the limitations of the model.

KEY TERMS

Fixed costs Fixed costs are the costs that remain constant with the level of production sales. They are also known as period costs.

Variable costs Costs that change directly with the level of operations are called variable costs. They are also known as product cost.

Operating risk Operating risk refers to the chances that a firm's revenues are not sufficient to cover the operating costs. It is the fixed costs that cause operating risk due to their invariance to sales. Higher the fixed costs higher is the operating risk.

Degree of operating leverage (DOL) DOL measures the variability of operating profit with a given change in sales.

Financial risk The degree of financial risk depends upon the usage of fixed cost bearing sources of financing (i.e., debt) and is measured by the degree of financial leverage.

All technical terms have been explained at the end of each chapter as key terms. This will help you to retain all the new terms that you have learnt in the chapter.

KEY FORMULAE

$$\text{Total Cost} = TFC + (UVC \times N)$$

$$\text{Breakeven Sale} = \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} \times \text{Sales}$$

$$\text{Breakeven Quality} = \frac{\text{Breakeven Sales}}{\text{Selling Price}}$$

$$\text{Breakeven Capacity} = \frac{\text{Breakeven Sales}}{\text{Capacity Sales}}$$

$$\text{Margin of Safety} = \frac{\text{Actual Sales} - \text{Breakeven Sales}}{\text{Actual Sales}} \times 100$$

$$\text{Target Sales for Profit of } x = \frac{\text{Fixed Cost} + \left(\frac{x}{1-T}\right)}{\text{Sales} - \text{Variable Cost}} \times \text{Sales}$$

These have been identified by equation numbers throughout the text and will help you to retain the important formulae discussed in a chapter.

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Preface to the Second Edition

Sensible financial management practices create organizational value by allocating scarce resources among various business opportunities. It helps in the execution and supervision of an organization's business policies. The importance of sound financial management practices cannot be stressed more in an ever-changing global economy. The book is targeted at students taking the post-graduate management course. We have continued to provide a balanced attention to both conventional and non-conventional areas of financial decision making.

We are very happy to learn about the enthusiastic response that this book has received. The second edition of this well-accepted textbook continues to provide an exhaustive yet lucid coverage of the subject. We sincerely hope that the revised edition of the book will further aid students in understanding the basic concepts and principles of this subject.

Since the publication of the first edition three years back, we have received feedback from faculty members regarding the inclusion of certain topics. We have included their suggestions while revising the text.

Extended Chapter Material

The second edition improves upon the coverage of the original edition, making the text much more comprehensive and lucid.

Chapter 6 Valuation and Management A new section on ratings has been included in this chapter. Rating symbols facilitate decision making by investors. The section includes in-depth discussions on how ratings ascertain the adequacy of cash flows to service debt and the risks associated with them. It also discusses rating exercises by agencies and the ratings assigned by them.

Chapter 10 Valuation and Corporate Governance This chapter, which was titled Valuation in the first edition, has been revised and expanded to include extended coverage on economic value added (EVA) and corporate governance.

The section on EVA, one of the most popular value-based measurements, has been expanded in order to provide in-depth coverage of the factors that influence wealth maximization.

In the light of new industry developments, the section on corporate governance has been revised and updated. The section discusses how the corporate governance framework should ensure the accountability of the company to its stakeholders and board, and management of the company to its shareholders.

Chapter 17 Designing Capital Structure A new section on corporate debt restructuring has been introduced in this chapter. This section discusses the need for debt restructuring, which essentially involves the revival of units with potential.

Chapter 20 Financing Options This chapter has been revised extensively to focus on the long-term as well as short-term sources of funds. The chapter discusses long-term sources of funds such as equity, American depository receipts (ADR), global depository receipts (GDR), debentures and bonds, and project finance. India continues to be an attractive investment destination. The importance of venture capital (VC) funding and private equity (PE) in an emerging economy cannot be understated. These two topics have been expanded keeping in mind the latest industry trends. The section on short-term sources of finance discusses lines of credit, commercial papers, factoring, and forfaiting at length.

Chapter 21 Working Capital Management A new section on regulation of working capital finance has been included in this chapter. It discusses working capital financing by the banks in response to the working capital loan application by firms. The chapter discusses the implications of the Tandon study group. Banks follow the norms proposed by the committee regarding the assessment of working capital gap and the determination of maximum permissible bank finance.

Additional Resources

Excel templates related to a few illustrations, Unsolved problems from the book, Additional reading material related to portfolio theory are available to students; and *Instructor's manual* and *PowerPoint presentations* are availabl to lecturers on the password-protected website to the book— www.oupinheonline.com.

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Your feedback will help us improve the book. All feedback can be sent to: rajiv1234 @ hotmail.com and anil.a.misra @ gmail.com.

Praise for the First Edition

'This book deals with every aspect of financial management.'

Prof. Suman Kumar
NDIM, New Delhi

'The presentation is interesting and lucid. The excel illustrations are a welcome addition.'

Kousik Guhathakurta
Army Institute of Management, Kolkata

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Preface to the First Edition

Financial management as a discipline pertains to the management of financial resources. Broadly speaking, every decision/action having financial implications comes under the domain of finance. Specifically, there are three key areas of financial decision-making: *investment decisions, financing decisions, and dividend decisions*. Investment decisions are concerned with selecting the most optimal avenues of physical and financial investments. Financing decisions pertain to the choice of suitable sources to meet the firms' financing needs. The nature, composition, and above all, timing of financing are the main considerations in financing decisions. How much to retain for future financing needs of the firm and how much to distribute to the shareholders in the form of dividends is the key issue in dividend decisions.

The business environment, particularly in India, has undergone a major transformation with liberalization and growth of firms in Indian industry. The number of stakeholders has multiplied over the years on account of:

(a) quantum increase in the scale of business operations,
(b) proactive role being played by the stock market regulators,
(c) increased participation of institutional investors,
(d) pervasiveness of media that has put businesses to a closer scrutiny, and
(e) the threat of hostile takeovers.

In this changed business milieu, the focus of business decision-making is on the expectations and perceptions of these external stakeholders, though the considerations of shareholders remain dominant.

Financial management as a subject has gone through a 360-degree makeover—from insiders-looking-out approach to outsiders-looking-in approach—the nucleus of this metamorphosis being the requirement to put more emphasis on managerial decision-making skills. Sustainable growth in today's dynamic business environment demands a clear perception of market trends with the ability to take prudent managerial decisions. With the emergence of computing tools like spreadsheets, the emphasis of financial management is more on understanding and application of decision-making models and less on number crunching. Today, the thrust of the course is on resource optimization through quick and quality decisions related to both sides of the balance sheet.

Although the established areas of financial decision-making are still relevant, the changing business milieu has widened their framework to include certain non-conventional options of investment and financing. On one hand, the scale and the complexity of business has grown manifold; while on the other, the investors' expectations for the returns on investment are growing amidst the shrinking volumes and margins caused by increased competition. This has widened the purview of investment decisions to include avenues such as options, futures, forward, and other derivative instruments. From financing viewpoint, newer and creative sources of financing such as leasing, external commercial borrowings, securitization, ADRs, etc., have evolved to give wider choice and flexibility in financing. Also, the increased rate of internationalization of business has given prominence to issues pertaining to international finance such as currency risk and exposure, hedging, etc.

About the Book

This textbook on Financial Management is primarily designed keeping in view the requirements of MBA students undergoing the course in Business Schools in India. The book aims at explaining the concepts in the simplest possible manner without burdening the readers with unwarranted text.

The book devotes an equal attention to both conventional and non-conventional areas of finance decision-making.

Owing to its liberal resort to managerial and decision-making applications, the book will prove to be a useful ready reckoner for the readers for referring to important concepts in finance, first as aspiring managers and later as working professionals.

Pedagogical Features

The book adopts a simplified approach while presenting the basic concepts and policy issues in finance. To ensure that the readers do not get bogged down by the mathematical trivia and are able to assimilate and appreciate the broader issues of financial policy making, complex financial/mathematical models have been simplified, without in any way compromising with the inherent technical nature of the subject. Each chapter starts with a caselet to sensitize the readers with the theme of the chapter. To facilitate understanding of complex concepts in finance, the text in each chapter is interspersed with suitable examples/exhibits.

Besides the Learning Objectives and the Introduction that unfold the chapter, the end-chapter summary provides a bird's eye view of the topics discussed. All the technical terms that warrant explanation and recapitulation have been defined at the end of each chapter as Key Terms. A compendium of formulae too has been provided at the end of each chapter to facilitate revision and to put the readers at ease before attempting the numerical problems. End-chapter Practice Problems aid the readers in mapping the concepts with the real-world situations. Most of the chapters end with a case study that focuses upon the policy issue(s) discussed in the chapter. Most of these case studies have been developed from the real-world situations to expose the readers to virtual business environment of financial decision making.

To assist the readers traverse through the chapters without missing crucial details, the chapters are provided with a number of side-boxes that collect the essence of important sections.

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Coverage and Structure

The course on financial management covers three broad areas: investment decisions, financing decisions, and dividend decisions, besides the basic tools and techniques such as time value of money, valuation, risk management, etc., that facilitate decision-making in these areas.

The book follows the style of moving from simple and fundamental issues to complex issues and models in financial decision-making. The fundamental concepts like ratio analysis, CVP analysis, and valuation techniques that find their application in subsequent chapters have been discussed in Part I and Part II of the book. Important corporate finance decisions of *Investment, Financing,* and *Dividends* are covered in later chapters for which the foundations are already created in earlier sections.

Part I of the book (Chapters 1–3) discusses the tools for financial analysis and managerial decision-making. Chapter 1 lays down the conceptual framework for financial decision-making in a "for-profit" business setting. The goals of "for-profit" business organization, the decision areas in financial management, the issue of multiplicity of stakeholders and related conflicts of interests in a typical corporate set up, etc., are the issues discussed in the chapter. Chapters 2 and 3 deal with the arithmetic tools of ratio and CVP analysis, respectively that are frequently used in managerial analysis and decision-making.

Part II that comprises seven chapters (Chapters 4–10), focuses upon the concepts and models that are fundamental to the understanding of financial decision-making. Vital concept of Time Value of Money presented in Chapter 4 finds application in investment and financing decisions in Part III and Part IV of the book. The concepts of Risk and Return (Chapter 5) find their application in almost all the subsequent chapters as the decisions whether related to the asset side or the liabilities side involve risk-return analysis. Determining the investment yield and the intrinsic value of securities is the key to making worthwhile investment in securities. Chapter 6 and 7 discuss at length the various models for determining the value and yield from securities, primarily bonds and shares. Such models facilitate the selection of right kind of securities for investment/ disinvestment. The CAPM and Arbitrage Pricing Models that form the basis of Portfolio Theory have been taken up in Chapter 8. Chapter 9 on Portfolio Theory takes the discussion in Chapter 8 further. How to reduce the risk by diversifying the portfolio and how to design an optimal portfolio have been discussed therein. Chapter 10 explores the corporate valuation models that are used for the valuation of firms for different purposes such as mergers, acquisitions, takeovers, restructuring, etc.

Part III (Chapters 11–15) deals with the theoretical framework and the practical techniques used in investment decisions. This part deals with the asset side of the balance sheet with a focus on long-term investment. Short-term investment decisions and financial investment decisions have been dealt with separately in Part V (Working Capital Management) and Chapter 8 (Portfolio Theory) respectively. Chapters 11 and 12 take up the conceptual framework and the decision criteria for the long-term investment decisions. While the former discusses the basic issues in capital budgeting decisions like cash flow estimation and appraisal techniques for investment decisions, the latter takes up the advanced issues in investment decisions like decisions under the conditions of uncertainty and capital rationing. The techniques to incorporate risk in investment decisions have also been taken up in the chapter. The cost of capital is one area that finds its application in almost every financial decision, be it investment decision, financing decisions, or performance appraisal, to name a few. Since cost of capital acts as a hurdle rate for evaluating the investment options, it has been taken up under the investment decisions in the scheme of the book. Chapter 13 (Cost of Capital) focuses upon determining the cost of different sources of financing and eventually the overall cost of capital (or the weighted average cost of capital) that acts as the hurdle rate or the discount rate in the investment appraisal models. Real options that have lately emerged as the tools for incorporating uncertainty in investment decisions have been taken up in Chapter 14. The options to expand, delay, and abandon, and the valuation of these options have been discussed therein. Chapter 15 deals with the decision involving big ticket investment, i.e., mergers and acquisitions (M&A). Besides the theoretical aspects of M&A, the chapter also discusses the crucial aspect of valuing an M&A deal.

Part IV (Chapters 16–20) deals with long-term financing and dividend decisions. Chapter 16 lays down the theoretical foundations of the capital structure (or financing decisions) that find their application in the designing of capital structure in Chapter 17, where the crucial issue of determining the optimal capital structure has also been addressed. The propositions of Miller and Modigliani being common to both capital structure and dividend decisions, the two issues have been clubbed together and dealt with in the capital structure decisions. The focus is on application of principle of arbitrage. Leasing, an important source of indirect financing (long-term), is discussed in Chapter 18. The rationale and the structure of a lease transaction have been dealt with, *inter alia* in the chapter. Dividend decision, though an independent financial decision, affects the availability of the internal finances of the firm. The impact of the dividend policy on the internal financing (retained earnings) and hence the financing decisions, has convinced us to deal with the dividend decision along with the financing decisions. Chapter 19 discusses the theoretical framework of dividend decisions, designing of a dividend policy, and the methods of dividend payments. Chapter 20 on Financing Options discusses financial markets, financial products available, and the services offered by financial markets. In addition, this chapter throws light into domestic capital markets and their constituents, venture capital funding, and investment banking. It also discusses the sources of short-term and long-term financing.

Part V (Chapters 21–24) discusses working capital decisions that are concerned with the management of day-to-day operations. The focus of this part is on managing the level and financing of investment in the working capital. Chapter 21 lays down the framework for working capital decisions. The chapter is

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introductory in nature and discusses the generic issues that have been taken up subsequently in Chapters 22–24 that deal with the specific components of working capital management. Chapter 22 deals with one of the most important component of working capital, the inventory. Optimizing the investment in inventory is the basic thrust of this chapter. Receivables Management (Chapter 23) deals with the credit policy variables and their impact on the firms' value. The vexed issue of 'how to maximize the cash availability to support business operations, yet minimize idle cash' has been covered in Chapter 24 (Cash Management).

Part VI (Chapters 25–27) deals with the issues of international finance. Globalization has significantly widened the horizons of the domestic firms. Trade is no more confined to geography of a nation and has instead expanded its reach across borders. Now, many domestic firms are engaged in transactions with international suppliers and clients. A complete understanding of various currencies and their values is indispensable to pull off these transactions successfully. Moreover, such transactions have exposed the firms to the additional risks of appreciation/depreciation of currencies. Foreign exchange markets, transactions, determination of exchange rates, etc. have been taken up in Chapters 25 and 26. Chapter 27 discusses transaction exposure, economic exposure, translation exposure, and their management using the techniques such as hedging, risk sharing, forward, etc.

Part VII (Chapters 28–30) deals with the different types of risks and their management using the tools of derivatives such as forwards, futures, options, and swaps. With increased globalization and recent financial innovations, the choice available to managers has not only expanded but has become complex too. The elements of risks are getting added, so are the tools and techniques of managing them. A host of new financial instruments have emerged as an outcome of financial innovations. Such instruments have complexities in description as well as usage. A separate chapter has been devoted to each of the instrument focussing on the description, features, valuation, and applications of each. Understanding of these concepts has become inevitable in today's environment in the areas of corporate finance, risk management, and security analysis.

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RAJIV SRIVASTAVA
ANIL MISRA

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Contents

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CHAPTER

1

Financial Management —An Overview

LEARNING OBJECTIVES

The chapter is aimed at

- discussing the nature and scope of financial management
- explaining the role of finance function in an organization
- elaborating the key decision areas in financial management – investment, financing, dividend, and working capital management
- discussing the principles underlying the four broad areas of financial decision-making
- enunciating the objective function of financial management
- discussing the issue of multiplicity of stakeholders in business and the associated agency problems and costs
- highlighting the relationship between financial accounting, management accounting, and financial management
- expressing the relationship between financial objective and organizational strategy

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SHAPE UP OR SHIP OUT

Electro Korea, a Korean electronic giant, was forced into bankruptcy post-South East Asian currency crisis in 1997. Mr Gupta, the President of Electronica India Limited, an Indian MNC, with an eye on expanding his company to global level visited Seoul to explore the possibility of taking over Electro Korea. Mr Gupta called upon Mr Chin-Hwa, erstwhile CFO of the Korean company, now working as a consultant, to figure out the problems that caused the firm's closure.

The following conversations took place between Mr Gupta and Mr Chin-Hwa:

Mr Gupta: Tell me Mr Chin what financial problems did Electro Korea encounter that caused the demise of the firm?

Mr Chin: Sir! The problem was not one or two, but three-dimensional. The company faltered on three basic financial management tenets, i.e., investment selection, finance sourcing, and fund utilization.

Mr Gupta: Please go ahead.

Mr Chin: The problem started with a strong urge to meet the demand and capitalize on the booming market conditions. In view of the overwhelming demand for electronic products not only locally but in the global markets too in post 1990s, the company added a wide range of products to its existing product line. We became over-enthusiastic and to tap the growing market, expanded production capacity by 500%. Between 1990 and 1992, five new manufacturing units were set up.

Mr: Gupta: Oh! that is a phenomenal growth in a short period of time.

Mr Chin: Yeah, true but most of this expansion was debt financed using either short-term loans from Korean banks or long-term foreign currency loans. With the ongoing phase of expansion the banks were very open-hearted in lending to the firm. By 1995, the debt–equity ratio reached a catastrophic level of 5:1. To make hay while the sun shines was the common phrase that was used by all from top, middle, and lower rungs of people. A wide array of products and brands emerged by 1995, causing a glut.

Mr Gupta: I can visualize some of the problems now.

Mr Chin: Recessionary conditions started setting in early 1996 and the company began to witness idle capacity that

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started dragging down its ROI. Theorists say that investment decisions are irreversible, we witnessed precisely that. Due to recessionary conditions there were no buyers for the three idle manufacturing units that we wanted to sell off. There was a huge pile up of raw material, semi-finished and finished goods inventory, which could be disposed off with a great difficulty at a value that was significantly below the book value.

Mr Gupta: That would have caused lenders to panic.

Mr Chin: Exactly. The banks that were hitherto pumping in money on demand were unwilling to roll over short-term loans. To complicate matters further due to devaluation, the local value of foreign currency loan of the company skyrocketed.

Another major problem was that in the first half of 1990 when the company's growth rate was in double digits, the company followed a very liberal dividend policy, which became unsustainable by 1995 with nose-diving revenues, profits, and cash flows. A sharp cut in dividends conveyed an adverse signal and the stock price of the company crashed in 1997.

Mr Gupta: We also witnessed a similar situation in 1990s but could avert the crisis as we stuck to fundamental principles of finance. Our expansion was need based, market driven and came in a phased manner. We tried to finance the additional investments as much as possible through internal sources, i.e., our past retentions. We maintained a stable dividend payout of 40% even amidst the very high growth period of 1990s and never allowed the debt–equity ratio to go beyond 2.5:1. Through better supply chain management and successful implementation of Just-In-Time inventory management, we ensured that even during this high-growth phase we were carrying close to zero level of inventories.

Mr Chin: I appreciate what you did. I presume that only because of sound financial management policies you are here on a buying spree.

INTRODUCTION

Businesses, whether new or existing, may vary from one another in terms of the industry they operate in, the environment they function in, the products/services they render, or the operations that they undertake. However, the finance issues that businesses grapple with, notwithstanding their industry characteristics, geographical location, product profile etc. are largely universal. These are:

- From where to raise the most cost-effective financial resources needed to carry out the operations and how to manage the risks associated with such financing?
- Where to invest the scarce business resources so as to maximize the returns on the investments, i.e., selecting the right nature and optimal scale of businesses, projects, etc. and at most suitable locations?
- How to manage the routine production–distribution functions in the most optimal and cost-effective manner so as to maximize the wealth of the stakeholders?
- How much of the profits to retain for future investment needs and how much to distribute as dividends to shareholders?

The scope of financial management extends to the decisions pertaining to optimal utilization of financial resources. The role of a finance manager is to resolve the aforesaid issues that are commonly categorized into—financing decisions, investment decisions, working capital decisions, and dividend decisions. All these issues are resolved in the light of their probable impact on the wealth of the shareholders, which is commonly accepted goal for all 'for-profit' organizations.

NATURE AND SCOPE OF FINANCIAL MANAGEMENT

The term financial management has emerged from the generic discipline of management. In order to understand financial management, it is better to start with an understanding of the term *management*. Management, simply put, is all about securing the optimal use of the resources at the disposal of a firm towards the attainment of some predetermined goals. These resources are of many kinds such as human capital, production machines, distribution channels, etc. Resources are put under the charge of their respective departments that are responsible for their management and control. Each department contributes towards the organizational objectives by effectively managing the resources they are in charge of. As can be seen in Figure 1-1, financial management is concerned with the management of financial resources of the organization. Many terms such as capital, funds, cash flow, money, etc. are used synonymously and interchangeably to describe financial resources. The finance department of the organization is responsible for the financial management of the firm, which it does through the means of financial decision-making.

Financial management is concerned with managing financial resources in the most optimal manner.

Financial management performs facilitation, reconciliation, and control functions in an organization. The sourcing of finances needed by various departments and its rational allocation for various activities is done by the finance department. This facilitates the attainment of the various departmental goals along with the

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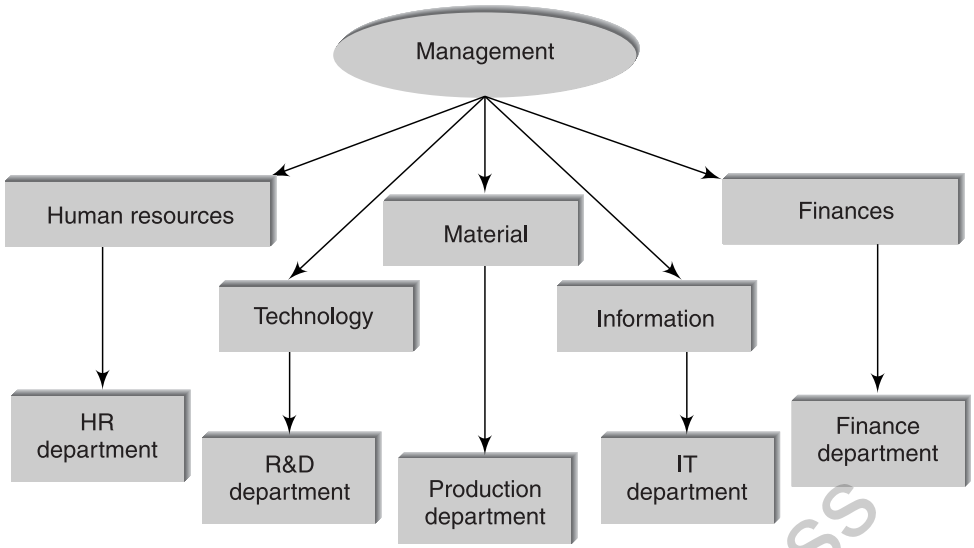

Figure 1-1 Financial management as a sub-discipline of management

realization of the overall organizational goal. The rational and balanced allocation of resources done by the finance department reconciles the interests of the various departments and pre-empts any kind of probable conflict for resources between the various departments of an organization. Also, the finance department maintains a constant control over the various activities of the organization and makes different departments accountable for the resources that they consume.

Through the process of financial decision-making the finance department performs facilitation, reconciliation, and control functions.

All decisions that have monetary implications come under the purview of financial management. Decision related to other functions such as the decision to launch a major advertising campaign or to go ahead with a comprehensive training programme for middle-level managers are although under the control of marketing and HR functions respectively, their financial implications require ratification by the finance department. This widens the scope of financial decision-making practically to all the decisions. It is due to this fact that it is said that 'the finance manager is on the top and not on the tap'.

ROLE OF FINANCE FUNCTION

Finance is central to all business activities—for survival and growth alike. All business performance, targets, and goals though set in absolute terms have a common measurement in financial terms. Similarly all comparisons either with the past or with competitors are measured or analysed with financial data.

An organization can be viewed from two different perspectives—functional and stakeholders'. From the functional viewpoint, each organization can be divided into various functional areas such as marketing, production, personnel, etc., which discharge different duties and perform different roles to achieve organizational goals. The functional division of organizational structure helps to translate wider goal into smaller and perceivable sub-unit or functional goals. It also helps establish the relationship of each individual with the organizational goals. Sales revenue and the effectiveness of the marketing strategy are some of the issues that the sales and marketing function evaluates. The results of a new machine installation, the cost of production of various items, etc., are some of the issues that fall in the domain of the production function. Similarly, personnel function needs to decide upon the executive compensation, establish training needs, and measure individual performance in quantitative and/or qualitative terms.

An organization can be viewed from two different perspectives—functional and stakeholders'.

Like different functions of an enterprise, there are different stakeholders associated with business. There exist shareholders who contribute capital and expect to earn a return on equity contributed. There are debt-holders who also provide capital but feel satisfied with the returns at a fixed rate. Employees work to earn their emoluments, suppliers provide material and services, and customers derive satisfaction by consuming the products and services offered by the firm. Besides there are various government and regulatory bodies who monitor performance in compliance with the rules and regulations aimed at general welfare of the society and nation as a whole.

Finance function is significant for all organizations from both functional and stakeholders' perspectives.

Different stakeholders of a firm have varied concerns, which can only be addressed by finance function. Shareholders need to know how their wealth would increase and how safe are they in their investment with the firm. Creditors want to know whether or not to supply materials on credit to the firm, and if yes, for what period and to what extent. Employees of the firm are also concerned about the timely receipt of salary and their personal

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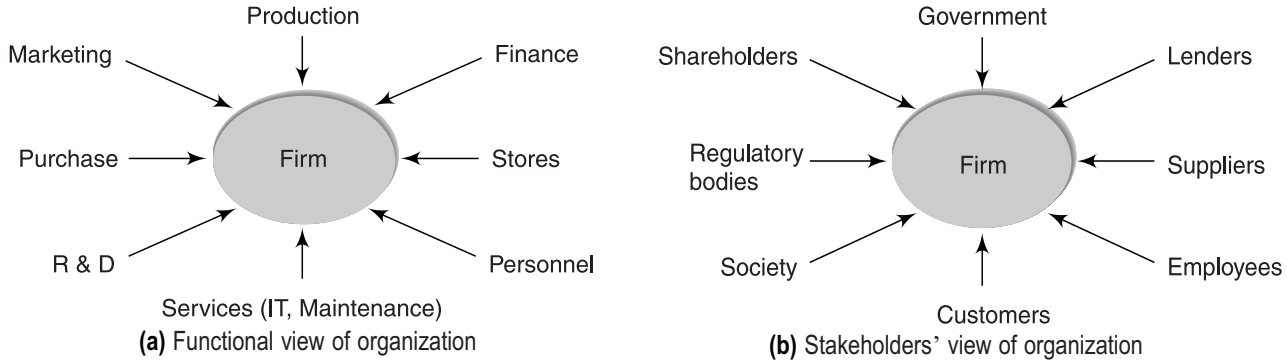

(a) Functional view of organization

(b) Stakeholders' view of organization

Figure 1-2

growth and general well-being. Customers' concern is that of value for money that they spend in buying goods and/or services rendered by firms. Lenders would be concerned with the security of the funds and the receipt of returns promised to them. Government would want to collect the taxes as projected.

Two separate views of the firm are depicted in Figure 1-2(a) and (b). Irrespective of the perspective of different functions and stakeholders, finance function serves as a common denominator by taking decisions that are in consonance with the interests of different stakeholders; by facilitating the decisions and by providing the information that the stakeholders need for evaluation and analysis of the firm's performance.

Finance function reconciles the potential conflicts between functional goals on one hand and between stakeholders' interests on the other.

FINANCE DECISIONS BY THE FIRMS

There are a host of decisions that the finance managers have to take throughout the life of the firm. Some of these decisions are routine operating decisions that are repetitive in nature and affect the business on a day-to-day basis. While other decisions such as the decision to set-up a new business unit, decision to merge with another company, etc., are of strategic nature as they have long-term implications for the business. Financial management is concerned with the procurement and utilization of funds in an optimal way so as to achieve the desired goals of an organization. The scope of financial management extends to four key decision areas—*investment, financing, dividend, and working capital.*

The thrust of financial decision-making is on procurement of funds and their optimal utilization through investment, financing, dividends and working capital decisions.

Investment Decisions

Investment decisions involve putting the resources in avenues that give a return that is in excess of the cost incurred on procuring such resources. This maximizes the wealth of the shareholders. These decisions are alternatively referred to as capital budgeting decisions. Basic issues involved in investment decisions are:

- evaluation of alternate investment avenues so as to select the best option; and
- implementation and monitoring of the selected investment option.

Investment decisions pertain to selection of the most productive avenues with a view to maximize the returns on investment.

For a new business such decisions usually relate to setting up of production–distribution facilities, while for an existing business they are mainly in form of replacement, modernization, and research and development (R&D) expenditure decisions. These decisions depend upon the nature of industry that the firm operates in, the kind of products/services offered, scale of its operations, etc. They have long-term implications, involve large capital outlay, and are normally irreversible. Drawing an analogy from our day-to-day life, we can say that the decision to buy a car or a house property is an investment decision that not only involves relatively large capital outflows but also has long-term implications as we do not take such decisions frequently unlike the decision to buy a pair of shoes.

Investment decisions are concerned with the expansion, modernization, and replacement of long-term assets (fixed assets).

These decisions are significantly important for the business not only for huge capital outlay that they entail and the element of irreversibility in them but also from the risk–return perspective. A wrong nature or scale of investment may not only bring down the return on investment but may also enhance the operating risk of the business.

In finance, we distinguish investment decisions based on the nature of assets. The assets deployed in business are broadly of two kinds—fixed asset and current asset. Fixed assets are those assets that serve the business for a long time, at least beyond one year period, while current assets have a short life and are held for sale, either in the same form or after transforming them, within a year's time. Examples of fixed assets include land, building, machinery, etc. Inventories, account receivable, and cash are the typical current assets of the firm.

Investment decisions which are alternatively referred to as capital budgeting decisions are crucial for survival and growth of any firm.

The decision to invest in the long-term assets (fixed assets) by the firm is referred as investment decision (or capital budgeting decisions). Right investment

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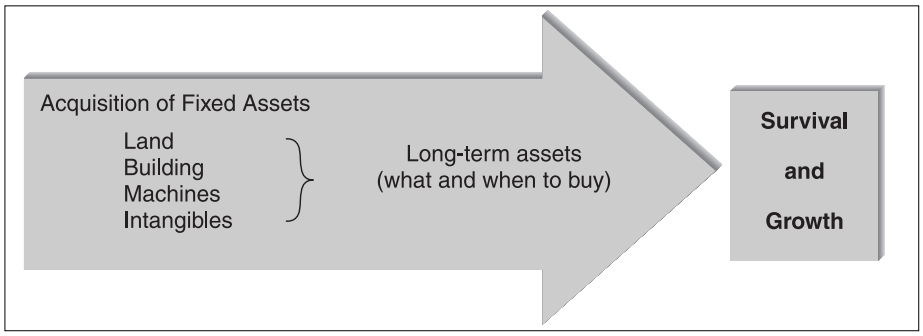

Figure 1-3 Investment decision

decisions, as indicated in Figure 1-3, are critical for long-term survival and growth of the firm. The decision to invest or not is taken in the light of the probable impact of such investments on the wealth of the shareholders. If the investment option is likely to create/enhance the wealth, it is acceptable, otherwise it is not. In case of multiple investment options, the option that is likely to maximize the wealth is acceptable.

Managers devote considerable time and energy in the selection of various businesses and in identifying, choosing, and acquiring the assets required to remain in the selected business. It requires conceptually a different framework and set of skills different from those needed to examine routine business issues.

Long-term assets are bought to perform production–distribution functions and earn a net rate of return that should satisfy the various contributors of capital. The basic issue in investment decisions is whether the cash generated from operations carried out by using or consuming such assets is sufficient enough, in real value terms, to meet the expectations of investors. If yes, the investment is acceptable, else managers reject the proposed investment. Investment decisions are benchmarked against the expectations of investors.

Productive capacity of a business depends upon the quality and the scale of its investments.

The issues in investment decisions and their implications are depicted in Figure 1-3.

Financing Decisions

The second question that finance managers face is how to fund the investments. Financing decisions relate to the procurement of required amount of funds, as and when needed, at lowest possible cost and on most convenient terms. These decisions are mainly concerned with the identification of potential sources of funds and tapping of these sources as per the funding requirements of the firm. Often these decisions are loosely referred to as *capital structure decisions*. Although capital structure or debt–equity structure is of prime importance, there are other issues as well that are covered under the rubric of financing decisions in addition to the capital structure. The main issues involved in such decisions are:

Financing decisions are concerned with the procurement of the required amount of funds on most convenient terms as and when needed.

Financing decisions are commonly referred to as capital structure decisions.

- Where from to procure the requisite capital?
- What should be the optimal mix of various sources of capital?
- How much should be the proportion of short-term and long-term capital?
- How do the expectations of providers of each source of capital change with alteration in the capital mix?

Financing decisions are as important as the investment decisions in the valuation of a firm. They determine the financial risk profile of the business.

While investment decisions deal with the creation of assets by the firm, financing decisions are concerned with the sources of financing such assets. Firms have two options of financing their long-term investments— debt and equity. While equity holders do not seek a fixed return (it does not mean that they have no expectation of return), the debt holders do expect a fixed return at periodic intervals as well as redemption of the original capital contributed. Debt, due to the associated tax advantage, is a cheaper source of finance than equity. Due to the lower cost of debt, increased usage of debt financing brings down the overall cost of financing for the firm. However, since debt carries the obligation for fixed interest payment and principal repayment, increased dosage of debt financing increases the risk of financial bankruptcy for the firm. A right blend of debt-equity assumes significance as it affects the risk return profile of the business. Decisions regarding the sources and mix of financing are taken in the light of their likely impact on the wealth of the stockholders. Such decisions may enhance or erode the value of the firm as shown in Figure 1-4. The other issue associated with the debt is the desire of the lenders for control over the business. With the increase in the debt component in the firm's financing the lenders start perceiving the firm to be risky and want, as a precautionary measure, a participation in its decision-making and control. Sometimes they may also put some restrictions on the firm as a pre-condition to their lending to the firm. Such interference in the decision-making of the firm may circumscribe the managerial decisions and may, at times, interfere with the goal of the shareholders' wealth maximization.

Another related issue in financing decisions is to determine the mix of short-term and long-term financing. This assumes significance as long-term financing enhances the liquidity position of the firm. But at the same time there is a risk that the funds may be lying idle for some part of the year and the

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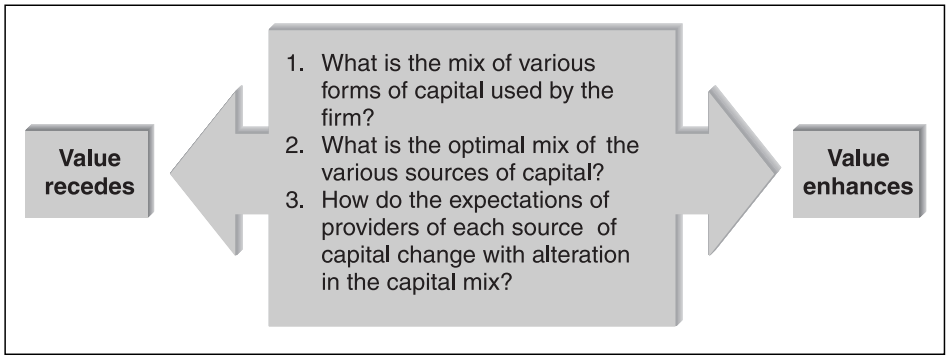

Figure 1-4 Financing decision

business may have to bear the cost of funds even for the period it does not need them. Short-term funds provide the flexibility to the business as they could be tied up with the needs of the business. For the periods additional financing is needed funds can be raised on a short-term basis and could be repaid at the time the need for funds comes down. However, there is a risk with short-term funds as well; they may not be available when needed. Even if they are available they may be available on terms that are inconvenient for the borrowers.

The thrust of financing decisions is on bringing down the cost of financing keeping the risk constant.

The thrust of financing decisions is to bring down the cost of financing the firm's investments and operations for a given level of risk.

Dividend Decision

Coupled with capital structure decisions is the dividend decision. The *dividend decision* focuses upon identifying what portion of residual profits to distribute to shareholders as dividends and how much to peough back for future financing needs of the business. Having generated cash, the firm must decide whether to retain or distribute the cash to the providers of capital. The providers of equity capital, who opted to link their fortunes with that of the firm and did not explicitly demand their investment back or return thereon, have to make a choice of retention or distribution of cash once it becomes available. Such a decision depends on trade off between future financing needs of the firm and current consumption requirements of the shareholders. Generally firms in sectors with a high-growth rate follow a policy of high retention and low payout. This is to plan for the future financing requirements in view of the high rate of projected growth and expansion for such firms. Firms that are in the sectors, which have matured and where the growth has been stabilized, normally follow a policy of high payout. In the absence of strong financing requirements, such firms, by having a high payout ratio, pass on the earnings to the shareholders in the form of dividends and enable them to make a choice to consume the income or invest in the firms/sectors that give them a better growth and a higher return on investment.

Rate of dividends and the method of its payment are the two key issues that the dividend policy is concerned with.

Payout ratio depends on the future financing requirements and the expectations of the shareholders for current income.

The payout ratio is decided in the light of its likely impact on shareholders' wealth. Normally firms follow a policy of stable dividends and do not make any significant change in their rate of dividend payout on an annual basis. Dividends are normally increased in a gradual manner to a level that is sustainable in foreseeable future. Since investment in assets is desired on a continuous basis and cash is also generated simultaneously, the question of retention of cash or its distribution assumes significance. Another related issue addressed by the dividend policy is the method of dividend payment. Should the dividend be paid in form of cash or should it be paid in form of stocks (stock dividends/ bonus shares)?

One may argue that given an investment policy and the financing mix, the dividend is automatic. Dividend policy is considered as a residue of investment and financing policy. High investment and financing requirements mean low payout and high retention policy and vice versa. However, another view is that dividend decision by itself can impact the value of the firm. It can be used as a tool of conveying some meaningful information about the firm, which is valuable for stakeholders. Therefore, dividend decision need not be residual of investment policy and financing decision. All the three decisions that the finance function has to take are intricately linked as depicted in Figure 1-5, and cannot be viewed in a simplistic manner. Any decision in isolation cannot be guaranteed as optimal.

There are two views on dividend decisions—dividend decisions as a residue of investment and financing decisions and dividend as an independent policy decision.

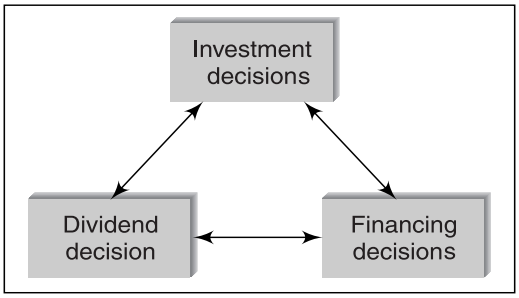

Figure 1-5 Decisions in finance

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Working Capital Decisions

Besides long-term assets, the firm also requires short-term assets known as current assets. These assets comprise cash and bank balances, account receivable and stocks of finished goods, work-in-process, and raw material. These assets are required for day-to-day functioning of the firm. Basic issues in working capital decisions are: determing the optimal level of current assets and deciding the most suitable sources of their financing. Questions such as what level of inventory should be maintained and for how long the credit should be given to the customers are of significant importance for any business as they affect the profitability–liquidity position of the business.

Working capital decisions are related to the management of current assets.

The two key decision points are the level of investment in current assets and mode of their financing.

Working capital decisions are classified as a separate group because short-term assets need a different approach than what is required for long-term assets. Constraints and decision-making criteria for working capital are substantially different from long-term assets.

The key decision issues in each of the aforesaid decisions areas of financial management are enumerated in Table 1-1.

An Integrated View of Finance Decision-making

All the four key areas of finance decision-making are very much interlinked and form part of the integrated framework of financial decision-making. As can be seen in Figure 1-6, the firm carries out its operations to achieve its goal. These operations, depending on the nature of the business, may be manufacturing, trading, or service and require certain economic resources (assets) that are both long-term and short-term in nature. Acquisition of these assets requires financial resources (liabilities). The figure can be read bottom upwards indicating the sequence of activities undertaken by the firm. This is shown by dotted lines in the figure. There are three key issues with regards to financing—the duration of financing, the sources of finance, and the financing mix. Normally short-term funds are tapped for working capital financing, while the long-term sources of funds are relied upon for long-term investments.

The four key decision areas in finance are the part of an integrated decision-making framework. They are directly linked to and reinforce each other.

Financing decisions also assume significance due to their impact on the business risk. Excessive usage of debt, which is a cheaper source of financing, though brings down the overall cost of financing, increases the bankruptcy risk for the firm. Another key decision that is intricately linked to the financing decision is the dividend decision. It is concerned with the allocation of the surplus (residual profits) between the dividends and the retained earnings, which are ploughed back to meet the future financing requirements of firms. Since retained earnings, which are an outcome of firm's dividend policy, represent the internal component of financing, the dividend policy is sometimes considered as a part of financing policy. Also, by altering its dividend policy, the firm can alter the mix of internal and external sources of financing.

The four decision areas of financial decision-making mentioned above are largely universal. However, the relevance and the importance of these decision areas vary from firm to firm depending upon industry characteristics and the nature of operations. For example, for firms in the Information Technology (IT) sector such as Microsoft Corporation or Infosys Technologies Ltd, investment decisions are of less significance as these firms are knowledge intensive firms and operate with low levels of fixed asset investments. The nature of their business demands huge investments in intellectual capital as opposed to physical capital. Similarly, since most of the IT firms are, at least till date, cash-rich firms the dividend decisions assume importance for them. As there is no production taking place in these firms and also because these firms mostly have project-based operations, the issue of working capital management does not hold much relevance for them.

Although the key financial decisions are universal, their importance varies.

Unlike this, the firms that are capital intensive such as those manufacturing consumer durables and capital goods require a large outlay for investment, particularly for creating and maintaining production, storage, and distribution facilities. Since manufacturing firms have long assembly lines, the management of working capital also assumes special significance for them.

Table 1-1 Key issues in financial decision making

Investment Decisions	• What business to be in? • What growth rate is appropriate? • What assets to acquire?
Financing Decisions	• What mix of debt and equity to be used? • Can we change the value of the firm by changing the capital mix? • Is there an optimal debt–equity mix?
Dividend Decision	• How much of the profit should be distributed as dividends and how much should be ploughed back? • Can we change the value of the firm by changing the amount of dividend? • What should be the mode of dividend payment?
Working Capital Decisions	• What level of inventory of goods is ideal? • What level of credit should be given to the customers? • What level of cash should be maintained? • How can the blockage of funds in the current assets be minimized without compromising profits?

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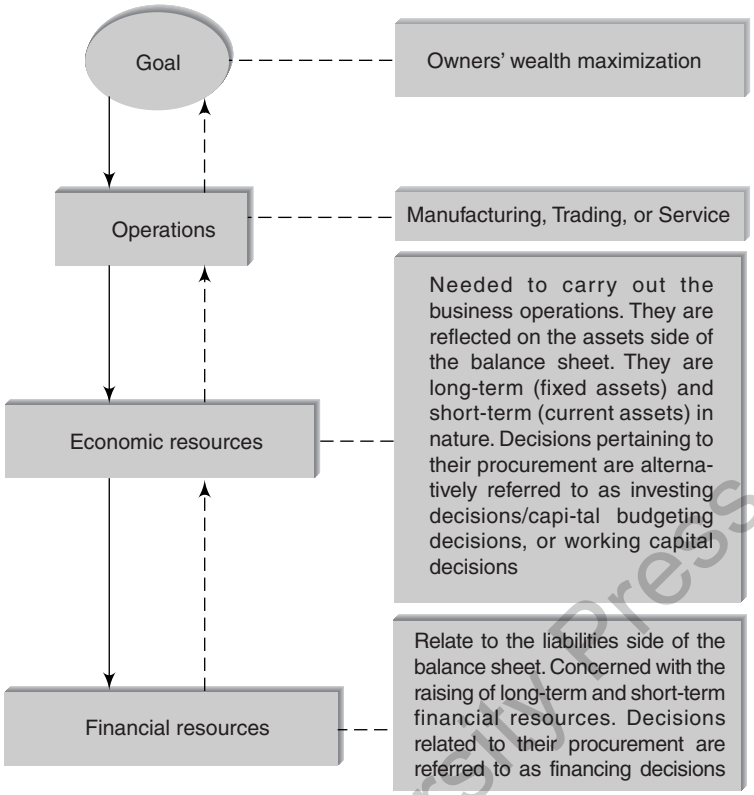

Figure 1-6 Financial decision-making framework

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OBJECTIVE FUNCTION IN FINANCE

Different functions and different stakeholders of a firm view its existence and objectives differently. At times these different set of objectives of various functions and stakeholders can be conflicting. Conflict may arise among different suppliers of capital—debt and equity. Debt holders may want the firm to play safe to ensure the safety of their stake in it. For this they may put some restrictive covenants in the loan agreement restricting the freedom of the shareholders to pursue some risky ventures. On the other hand, the shareholders in their endeavour to maximise their wealth may be interested in exploring some new and more profitable, though somewhat riskier business opportunities.

The stakes of the different stakeholders in the firm vary and so do their expectations from the firm.

Similarly different functions see an organization differently. The marketing function of a firm may want to reduce the price and improve the quality of the product with the objective of beating the competition though this may adversely affect the profits. They may also want to have inordinately high levels of inventory of finished products to ensure timely supply of products and to convert any unanticipated demand into sales. However, such a high level of investment in the inventory carries the risk of obsolescence and may result in pile up of non-moving inventory. Similarly, the production function would want adequate time to produce goods and plan procurement activities, much to the discomfort of marketing function.

The focus of different functional areas in organizations are at variance with one another.

There are several objectives that are associated with the for-profit firms. Some of the common ones are:

- Maximization of market share
- Maximization of profit/earnings
- Maximization of return on investment
- Achieving a specified service level
- Satisfying all stakeholders

Though all the stated objectives are valid and appealing, they do not provide an unfailing framework for financial decision-making. The aforesaid objectives suffer from the following limitations:

Objective function of the business should be in consonance with the interests of the multiple stakeholders.

1. they ignore view points of other stakeholders;
2. they are too vague and are non-quantifiable;
3. they do not take into account the changing value of money with time.

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Due to these limitations the aforesaid objectives are not acceptable as the overarching goal of the firms that have multiple stakeholders with varied stakes. Various decisions of finance, i.e., investment, financing, dividend, and working capital need a guiding principle that serves the objectives of all stakeholders and functions of an enterprise.

The only objective that seems to stand the rigorous test that each decision is subjected to is the maximization of shareholders' wealth. Finance scholars, managers, and the society in general are unanimous in the opinion that the sole objective of the firm is to maximize the shareholders' wealth. Let us view this objective in some detail.

As stated earlier and depicted in Figure 1-2(b), there are many stakeholders in the firm. A firm sells its products and/or services, pays the suppliers of raw material, pays wages and salaries to employees, and then meets other expenses. Thereafter, it services the obligations towards lenders by paying interest on borrowed capital before generating profit. As a good corporate citizen, it must also pay taxes to the government. If any profit is left, it goes to the shareholders. In a nutshell, although shareholders are the owners, they are entitled to the residual profit only. After meeting the commitments to all other stakeholders they get the remaining. Shareholders' claim cannot precede that of any other stakeholders. The flow of benefits is depicted in Figure 1-7. With maximization of residual as the objective of the firm, it can safely be stated that all preceding commitments have been satisfied adequately.

The goal of wealth maximization is widely accepted as it reconciles the varied, often conflicting, interest of the stakeholders.

Despite the overwhelming evidence and the unfailing nature of the objective, there are many critics of the goal of maximization of shareholders' wealth. It may be argued by some that shareholders being owners, managers, and controllers of the firm serve their own interests by maximizing their wealth. The objectives of other stakeholders are ignored. Instead, they may argue that a balanced approach with respect to all stakeholders would be better. However, it poses some practical problems of defining the right balance because of inherent conflicts of interests among the various stakeholders. Maximization of shareholders' wealth ensures that conflict, if any, must be resolved in favour of real owner of the firm. Firms focusing on the goal of wealth maximization ensure that they, in the process, take care of the interest of all the stakeholders as the individual goals of the varied stakeholders are in congruence with the goal of wealth maximization.

AGENCY COSTS AND CORPORATE GOVERNANCE

The company form of business organization has emerged due to the limitations of its preceding forms of businesses—sole proprietorship and partnership—in terms of their capacity to raise capital, hire professionals to manage their operations, scale of operations, and their legal status. Joint stock company is a form of business organization, which is commonly referred to as a body where the public is substantially interested. The stakeholders in a company are multiple and their stakes are varied. This multiplicity of stakeholders is on account of the following features of such firms:

The stakeholders in the company form of business organization are multiple, their stakes are varied and their objectives are often conflicting.

- The ownership lies with the shareholders who are widely scattered.
- Due to scattered interest, split between ownership and management makes management a key stakeholder.
- The large size and the wide impact makes the community at large interested in the firms.
- Capital comprises borrowed funds too. Hence, lenders are also stakeholders.
- These firms operate in a regulated environment. This makes the government a stakeholder.

Figure 1-7 shows clearly the various stakeholders in publicly-held firms. As it is evident from the figure, there are multiple stakeholders with varied stakes (interests) in a typical firm. The multiplicity of stakeholders with varied stakes and expectations leads to the pursuit of varied objectives by different stakeholders in the firm. These objectives are more often than not conflicting. To reconcile these conflicting objectives, the overall goal of 'for-profit' firms is stated as maximizing the wealth of the owners (maximizing the market value of equity shares in case of firms that are listed on stock exchanges). Pursuit of this all-encompassing goal by the firm ensures that the interest of all the different stakeholders is taken care of in the process as this wealth maximization as the goal of weath maximization is in congruence with the objectives of the varied stakeholders. No firm can bring about a sustained increase in the wealth of its owners without taking care of the interest of its other stakeholders. For example, deteriorating liquidity position of a firm makes the lenders, current and prospective, apprehensive about its creditworthiness, which eventually gets reflected in its share prices and consequently the wealth of the shareholders. Similarly, a firm that cannot retain its existing customers will witness a decline in its sales and consequently the market price of its shares.

Agency Issues

Theoretically the goal of wealth maximization provides a comprehensive framework to resolve the conflict of interest between the different stakeholders as it is consistent with the individual interests and objectives of the varied stakeholders. However, reality may be quite contrary to the theory. As per the theory, there exists a principal–agent relationship between the shareholders and the management, whereby the management is ex-

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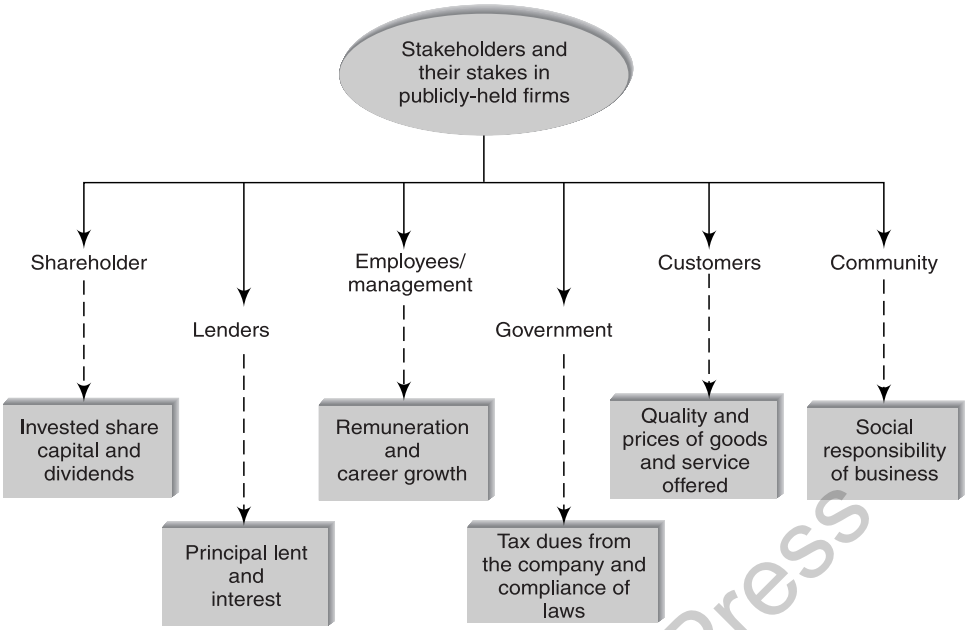

Figure 1-7 Multiple stakeholders and their respective stakes

Conflicting interest between the varied stakeholders particularly the stockholders and the management causes agency problems.

pected to manage the resources of the firm in the best interest of shareholders. However, contrary to the theory, as has been witnessed in several real life cases, the management instead of acting as an arbitrator of the stakeholders and the agent of the stockholders has been found to be acting in their own interest and trying to maximize their own wealth. This brings forth the issue of agency problem and the associated costs.

Agency problems occur on account of conflicts of interest between shareholders and management. Shareholders who are the principal stakeholders, delegate decision rights to the manager to act in their best interests. This implies a loss of effective control by shareholders over managerial decisions. The cases of insider trading, i.e., acquisition of shares by the management in view of an impending merger for which no information is available with the shareholders suggest agency problems. Similarly the cases of companies such as Enron and Worldcom, where the management in collusion with the auditors have been responsible for destruction of shareholders' wealth suggest the tendency of management to create an illusion of wealth creation so that they are not dislodged from their positions. Under the guise of shareholders' wealth maximization, management have been pursuing the agenda of self-aggrandizement, that too at the cost of erosion in the shareholders' wealth. In such a scenario, which emerges on account of conflicting stakes and interests of the multiple stakeholders, particularly the management and the stockholders, some kind of control on management becomes imperative. All such control mechanisms entail costs that are termed as agency cost.

To resolve the agency problems, monitoring and control mechanisms become imperative. Such mechanisms entail costs that are termed as agency costs.

Agency cost is a type of internal cost that arises from, or must be paid to, an agent acting on behalf of a principal. They arise on account of agency problems such as conflict of interest between various stakeholders such as management and shareholders, lenders and shareholders, etc. Such costs are inevitable within an organization whenever the principals are not completely in command such as the company form of business organization where the principal (the shareholders) put in their resources in the business but the resources are in control of the agent (the management). Such costs can either take the form of incentives to the management such as bonuses, profit sharing, stock options, etc., which align the interests of the agent with the principal or they can be incurred on monitoring and control such as audit fees, credit rating fees, etc. Such costs have their major financial implications from the perspective of shareholders' wealth. Irrespective of who pays such costs, they are eventually borne by the stockholders as the other stakeholders would always build these costs in the returns they expect from the firm. Thus, such costs eat into the wealth of the shareholders.

Agency costs take the form of either incentives to management like bonuses, stock options or monitoring and control costs like audit fees, credit rating fees, etc.

Corporate Governance

Another mechanism to ensure that the affairs of the firm are being managed in the best interests of the shareholders is the system of effective corporate governance. Corporate governance refers to the set of rules, processes, and customs that affect the manner in which an organization is administered. As discussed, the need of corporate governance emerges on account of divergence of interest, particularly between the owners (principal) and the management (agent). The essence of corporate

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Set of rules, processes, and customs that enable effective management of the firms in the best interests of the shareholders are termed as corporate governance.

governance is on improving the trust between the principal and the agent through increased transparency and better management conduct. This is brought about by introducing certain procedures, mechanisms, and guidelines that reinforce the accountability of management towards the shareholders.

Corporate governance rests upon the four pillars of transparency, full disclosure, independent monitoring, and fairness to all the stakeholders, especially to minority shareholders.

The mechanisms of corporate governance controls are:

1. Disclosure of certain crucial information that is considered important from the viewpoint of transparent governance of the company. Such information is disclosed not only for listing purpose, it is also disclosed on a quarterly basis to Securities Exchange Board of India (SEBI), a regulatory body safeguarding the interests of shareholders in listed companies in India. Also, it is included in the annual report for the purpose of reporting. The information includes—composition of board in terms of executive and non-executive members; details of meetings attended by each of the board member; disclosure of board level committees such as audit committee, remuneration committee, etc.; remuneration paid to the members of the board; details of related party transactions etc.
2. Monitoring by the board of directors
3. Restrictive covenants in the debt contracts
4. Regulations by Government, regulatory authorities such as SEBI (clause 49 of listing agreement issued by SEBI.)
5. Threat of takeover
6. Media's pressure

The issue of corporate governance has been discussed in detail in Chapter 10 of the book.

FINANCIAL MANAGEMENT AND ACCOUNTING

Financial management is a decision function that is related to both financial accounting and management accounting. Financial management shares a symbiotic relationship with financial accounting and management accounting as it affects and gets affected by the financial and management accounting statements.

Financial management is intricately related to financial and management accounting.

On one hand, financial management becomes an input function for the purpose of financial reporting that is done by financial and management accounting. What gets reflected in the different accounting statements is an outcome of firm's financial management. For example, the firm's performance in terms of its finance and investment functions is reflected in the firm's profit and loss account and the analysis of various statements.

On the other hand, financial management depends on the inputs provided by the financial statements such as profit and loss account and balance sheet and the different management accounting statements such as budgets, cost statements, etc. The information provided by different financial and management accounting statements facilitates the process of financial decision-making and thereby leads to better financial management and control. The relationship that exists is that of mutual interdependence as reflected in Figure 1-8.

The accounting information provides inputs for financial decision making. Financial decisions in turn get reflected in the accounting statements.

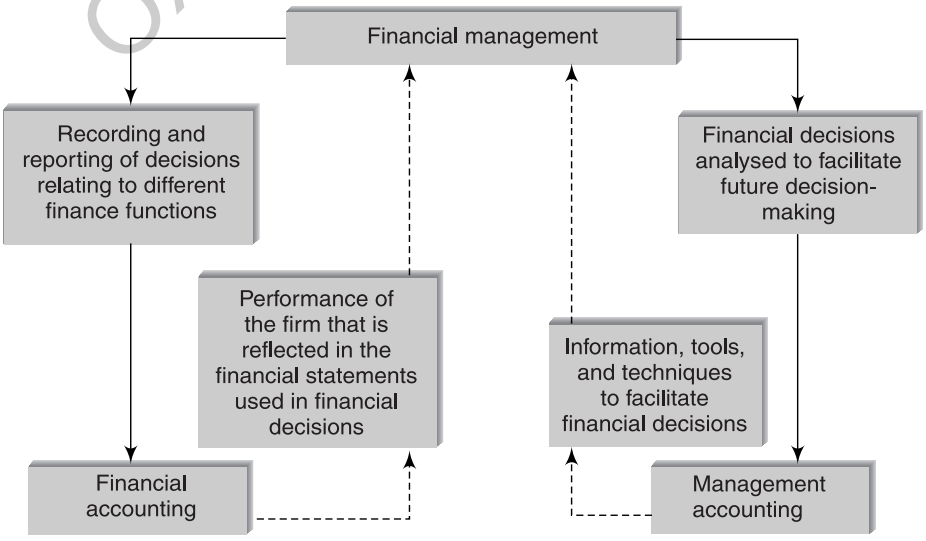

Figure 1-8 Relationship between financial accounting, management accounting, and financial management

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FINANCIAL OBJECTIVES AND ORGANIZATIONAL STRATEGY

Organizational strategy refers to a course of action designed to achieve a specific organizational goal. Given the organizational goal to be achieved, the strategy indicates how to reach there and where to get the resources from. Thus, it includes a detailed planning of structure, processes, and resources. It is in the light of this organizational or corporate strategy that the objectives of the other functional areas are decided. All the functional strategies such as marketing, finance, and human resources are formulated to reinforce the organizational strategy. Figure 1-9 explains this relationship.

Financial objectives of firms depend on their overall organizational strategy.

A firm's financial objectives and its financial strategy are guided by its corporate strategy. An expansionary corporate strategy will find its reflection in different finance functions too. The focus of investment function, in such a case, would be on expanding the physical capacity to handle the increased level of activity. Financing decisions in such a situation would focus on raising the required financial resources to support such expansion plans. Even the dividend policy of the firm with expansion strategy would normally be of a low payout. Similarly, if the organizational strategy is that of cost cutting, the finance function through the means of financial decision-making would reinforce this focus. On such occasions, the firm is likely to follow the techniques such as capital rationing and capital restructuring to cut down the costs. The working capital decisions of the firm would also reflect the overall corporate strategy. An expansionary strategy is normally accompanied with the tying up of additional resources in the different components of working capital such as inventory, receivables, etc. On the other hand the emphasis, during the contraction phase, is on unlocking the additional funds that may be blocked in the working capital.

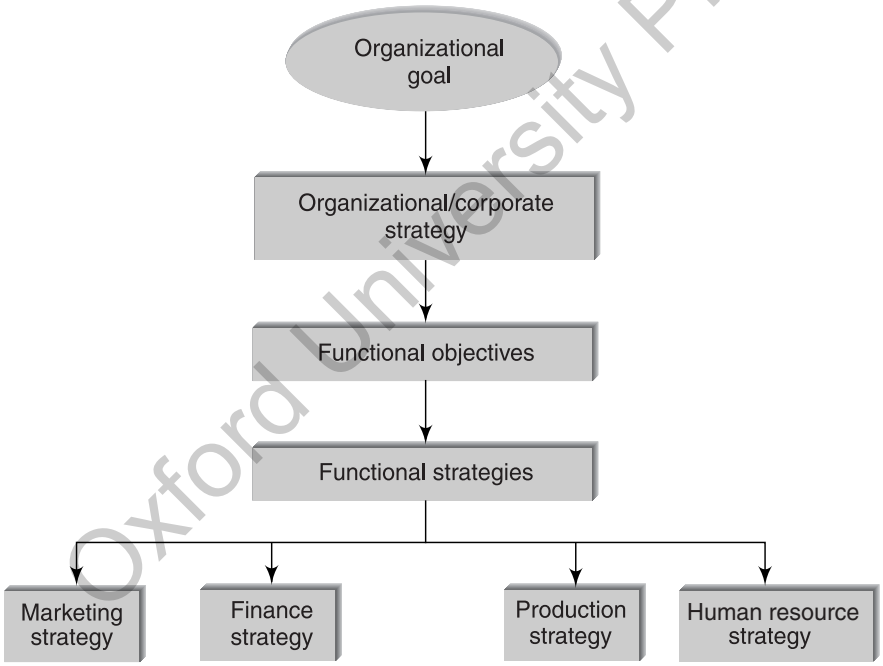

Figure 1-9 Relationship between financial objectives and organizational strategy

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SUMMARY

The term 'financial management' has emerged from the generic discipline of management and is concerned with the optimal utilization of financial resources. The finance department through the process of financial decision-making optimizes the organizational resources towards an objective function. In case of a for-profit business, this objective function is spelt out as shareholders' wealth maximization.

The role of finance function is of immense significance to the organization as it is the finance function that provides a common denominator to the varied functions and stakeholders in an organization. By arriving at financial decisions, that are in consonance with the interests of varied stakeholders and functional areas in an organization, finance function reconciles the conflicting interests of the varied stakeholders. The thrust of financial decision-making is on procurement of funds and their optimal utilization. This is done through four key decision areas in finance—investment decisions, financing decisions, dividend decisions, and working capital decisions.

Investment decisions are about maximizing the shareholders' wealth by sensibly putting the resources in such avenues that give

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a return in excess of the cost incurred on operating and financing such resources. Such decisions are alternatively referred to as capital budgeting decisions.

Financing decisions are concerned with the procurement of the required amount of funds at the right time on most convenient terms. By tapping the funds most economically and by maintaining the right blend of the debt and equity and short- and long-term sources, the returns are enhanced while the risk is minimized.

The decision as to what portion of profits to distribute to equity shareholders and how much to plough back for future financing needs of business is known as dividend decision. Dividend policy is concerned with rate of dividends and the method of dividend payment. The payout ratio is decided in light of its likely impact on shareholders' wealth.

Working capital decisions are related to the management of current assets. The two key decision points in working capital management are—level of investment in current assets and financing of such assets.

The four key decision areas in finance are the part of an integrated decision-making framework in finance. They are directly linked to each other and reinforce each other. Also, each one has a common objective function—shareholders' wealth maximization.

The goal of wealth maximization is the widely accepted goal of the business as it reconciles the varied, often conflicting, interests of the stakeholders. Also, it is free from the limitations that other objectives are faced with.

The company form of business organization has multiple stakeholders who have varied stakes and divergent expectations. This leads to pursuit of varied objectives by different stakeholders in the firm. These objectives are more often than not conflicting. This causes agency problems. To resolve the conflicting interests of diverse stakeholders, firms have to incur certain costs that are termed as agency costs. Corporate governance system is another mechanism used to resolve the problem of conflicting interests of the stakeholders. The corporate governance framework should ensure the accountability of the company to its stakeholders and board, and management of the company to its shareholders.

KEY TERMS

Firm Any business entity, large or small, privately run or publicly traded. It could be engaged in any kind of operation—manufacturing, retailing, or service. In the context of corporate finance, it normally connotes company form of business organization.

Restrictive covenants Restrictive conditions imposed by the lenders on certain corporate decisions to safeguard their stakes in the firm. Examples include restriction on declaration of dividends or restriction on further issue of debt, etc.

Shareholder Any individual, company, or institution that has fractional ownership in a company. They have a potential to profits if the company does well, but to loss if the company does poorly.

Stakeholders All parties that have an interest, financial or otherwise, in a firm. The various stakeholders in a typical firm are—shareholders, creditors, bondholders, employees, customers, management, community, and the government.

EXERCISES

Concept Review Questions

1. Discuss the nature and the scope of financial management.
2. What is the role of finance function in an organization?
3. What are the key decision areas in finance? Discuss the key decision points of each area.
4. What is the objective function in financial management?
5. The multiplicity of stakeholders in a firm causes the conflict of interests. Comment.
6. How is financial management related to financial accounting and management accounting?
7. Discuss the relationship that exists between financial objectives and organizational strategy.

Critical Thinking Questions

1. Finance function performs facilitatory, reconciliatory, and control functions in an organization. Discuss.
2. Key decisions in financial management are a part of an integrated decision framework. Discuss.
3. The pursuit of wealth maximization as the overall goal of the business reconciles the conflicting interests of the varied stakeholders. Elaborate.
4. Agency conflicts are the direct outcome of the multiplicity of stakeholders in a firm and their resolution lies in the convergence of the interests of varied stakeholders. Analyse.

Practical Assignments

1. Go through the annual report of a firm of your choice and find out what does it state with respect to the four decision areas of financial management discussed in the chapter. Note down the critical points that emerge in this context as they will form the basis of further discussion in the course. (Management discussion and analysis and the Directors' report sections of the report may be of special relevance in this regard.)

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2. Go back again to the annual report that you have selected and see what reporting has the company made under the heading corporate governance. Now find out what clause 49 issued by SEBI says with respect to corporate governance. See whether the issues mentioned therein have been covered in the corporate governance disclosure. Note down the issues that emerge with respect to corporate governance and relate to the discussion on multiplicity of stakeholders, particularly the conflict of interest between owners and managers.

CASE STUDY

Financial Management at Hero Honda Motors Ltd*

Background

Hero Honda Motors Limited came into existence on 19 January 1984. The company was formed by creating a joint venture between Hero Group and the Honda Motor Company of Japan. Owned by Hero (Munjal) Group, the company's current Chairman is Mr Brij Mohan Lal Munjal and Mr Pawan Kant Munjal is its Managing Director. The promoters of the company hold approximately 29% of the equity shares and the Indian public holds 9% of the total shares, while the institutional investors hold about 35%.

The company produces motorcycles and scooters. Some of the brand names of its products are Achiever, Karizma, CBZ, Splendor, Super Splendor, Splendor Plus, Glamour, Passion, Passion Plus, CD Deluxe, CD 100 SS, Sleek, and CD Dawn. The company also manufactures the spare parts of these two wheelers. Besides, the company provides mobile after-sales service to its existing customers. The company has two plants located in Haryana, one at Dharuhera and the other at Gurgaon. In a little over two decades, it has emerged as the world's largest manufacturer of bicycles and a global leader in motorcycles. The company has sold over 15 million motorcycles and has consistently grown at double digits since its inception and today, every second motorcycle sold in the country is a Hero Honda. Hero Honda is a world leader because of its excellent manpower, proven management, extensive dealer network, efficient supply chain, and world-class products with cutting edge technology from Honda Motor Company, Japan.

Progressively through the 1980s, the 1990s, and now in the 2000s, Hero Honda has relied on 3 R's—*reach*, *research*, and *reliability* as its basic building blocks. Using feedback from the market, a fully-equipped R&D centre has consistently created best practices in designing, testing, and harmonization, besides placing strong emphasis on road safety and ride quality. This emphasis has helped Hero Honda build products that are ahead of their time. Hero Honda became the first company in India to prove that it was possible to drive a vehicle without polluting the roads. The company introduced new generation motorcycles that set industry benchmarks for fuel thrift and low emission.

Financing Policy

The company has been a debt-free company for the last five years. The unsecured loan of ₹186 crore from the state government of Haryana on account of sales tax deferment is interest-free and has no holding costs. The company has been meeting its expansion and growth needs from its internal sources of financing. The financing mix of the company for the past six years has been as follows (Table A):

Table A Financing mix of Hero Honda

Time	*Debt–equity ratio*
March 2001	0.11
March 2002	0.17
March 2003	0.16
March 2004	0.15
March 2005	0.15
March 2006	0.09

The financing mix of the closest competitor, Bajaj Auto Ltd, stood as follows (Table B):

Table B Financing mix of Bajaj Auto Ltd

Time	*Debt–equity ratio*
March 2003	0.25
March 2004	0.27
March 2005	0.29
March 2006	0.30

*The case study has been developed based on the information collected from the annual reports, managerial discussions and analyses, and other information available at the company's official website, besides the various secondary sources of information including reports, new items, etc. Some of the views expressed in the case study may not be in conformity with the official viewpoint. The purpose of the case study is to enable the reader to see the application of specific concepts discussed in the chapter and not to illustrate either effective or ineffective handling of an administrative situation.

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Performance

The executive summary of Hero Honda Ltd is as follows (Table C):

Table C Executive Summary of Hero Honda *(₹ in crores)*

	March 2001	*March 2002*	*March 2003*	*March 2004*	*March 2005*	*March 2006*
Net sales	3171.22	4466.48	5097.95	5833.01	7419.86	8708.13
Other income	10.63	47.21	23.25	53.60	44.05	75.81
Cost of production	2581.28	3463.47	3922.35	4502.45	5842.09	6878.70
PBDIT	459.55	750.01	903.65	1054.60	1227.21	1438.05
PBDT	424.45	717.09	878.83	1031.65	1209.45	1422.47
PBT	380.18	666.08	815.44	958.32	1120.07	1307.85
PAT	250.10	434.63	511.64	614.18	713.29	866.95
Gross fixed assets	614.66	704.52	780.88	901.45	1074.73	1421.54
Current assets	663.83	536.46	1666.57	2068.80	2577.72	2850.92
Net worth	608.99	675.54	860.33	1138.81	1493.38	2009.33
Equity capital	39.94	39.94	39.94	39.94	39.94	39.94
Long term borrowings	66.48	116.44	134.28	174.70	201.76	185.78
Capital employed	675.47	791.98	994.61	1313.51	1695.14	2195.11
Current liabilities & provisions	460.12	880.21	1116.21	1260.05	1500.47	1562.80
Total assets/liabilities	1125.47	1733.34	2176.67	2652.08	3294.68	3875.07
Growth (%)						
Gross sales	40.97	40.75	14.22	32.24	27.42	17.32
Cost of production	41.61	34.18	13.25	14.79	29.75	17.74
PBDIT	34.19	63.21	20.49	16.70	16.37	17.18
PAT	35.66	73.78	17.72	20.04	16.14	21.54
GFA	22.45	14.62	9.30	13.95	19.09	29.27
Total assets	33.26	54.01	25.58	21.84	24.23	17.62
Profitability Ratios (%)						
PAT/sales	7.87	9.72	10.02	9.09	8.29	8.59
PAT/net worth	47.52	67.67	66.63	61.44	54.20	49.50
PAT/total assets	25.39	30.41	26.17	25.44	23.99	24.18
PAT/capital employed	42.75	59.24	57.28	53.22	47.42	44.57

Investment Policy

The company keeps on increasing the production capacity from time to time to cope up with the rising demand. During the year 2005-06, the company added ₹399 crore in fixed assets to expand the manufacturing capacity. The production capacity of Gurgaon plant was increased from 5,000 to 6,500 units a day in the previous year. To tap the increasing demand for the motorbikes, the company decided to carry the process of expansion further and increase the capacity at the Dharuhera plant to 6,500 units by the fall of 2006. This would take the installed capacity to roll out 13,000 units a day. This capacity expansion will take care of the growing demand in the short run. The company is in the process of setting up a third plant to take care of the demand in the medium-term as it would also enable the company to realize its mandate of becoming a global scale and world-class manufacturer. A state-of-the-art manufacturing plant with an investment of ₹400 crore to be operational by mid-2007 at Haridwar with an initial production capacity of 5,00,000 is proposed. Besides, the company, in order to improve its efficiency and to cut down the cost, has made investment in augmenting its welding capacity. The company has also invested in technology that will help in localizing the production of gear boxes. By 2010, Hero Honda and its ancillaries will invest ₹1,900 crore in the new plant, achieving a capacity expansion to 15 lakh units, thereby enabling the company to cater to future market demand and consolidate its market leadership.

Working Capital

The company has already endeavoured to set benchmarks in its working capital management and has continued to operate on negative working capital for the past several years. The continued focus on working capital has helped the company to enhance cash flows through better management of inventory, receivables, and payables. As a part of cost rationalization drive, the company has aggressively availed cash discount from its vendors by making the payments before due date. This has not only helped to improve its operating margins but has also allowed it to deploy the surplus funds in its core business operations. The tight monitoring and control of the working capital components has been the main source of satisfactory working capital management, which is reflected in the following figures:

Table D Working capital management and liquidity ratios

	2004-05	*2005-06*
Inventory period (days)	11.30	10.50
Operating cycle (days)	14.00	14.90
Cash cycle (days)	–33.00	–23.90
Current ratio	0.53	0.74
Acid-test ratio	0.34	0.54

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The company has made sustained efforts to prune manufacturing variable costs over the years through the process of localization and process improvement. To a large extent, these costs have been controlled and the cost per vehicle came down from ₹837 to ₹353 in March 2005. However, due to sharp increase in the cost of electricity and its erratic supply, the declining trend in the variable manufacturing costs was reversed in 2005-06. To address this problem, the company has commissioned HFO-based generator sets at each of its facilities. In the coming months and years, these measures will help Hero Honda to prune its material and manufacturing costs substantially.

As 60–70% of the revenue of the company is made up of material costs, vendor management is a critical factor. To improve plant efficiency and inventory turns, the company has extended Just-In-Time (JIT) beyond the shop floor. An online vendor connectivity programme has been implemented and extended to 94 vendors from 46 in the previous year. As a result, the company has been able to access 70% of the materials (in value terms) by maintaining zero inventory. For the balance, the average inventory period is about 34 days. The cost of raw materials as a percentage of total sales decreased from 70.1% in 2004-05 to 69.5% in 2005-06 primarily due to favourable changes in sales mix and continued focus on cost rationalization. To rationalize the supply chain further, the company is now switching to system purchases and also looking at the possibilities for global procurements. The working capital performance of Hero Honda Motors Ltd. is given in Table E.

Compared to the company, the working capital cycle of the other firms in the automobile sector was as follows:

Dividend

The company has been continuing with a liberal dividend policy during the past few years. The company believes that the shareholders should benefit appropriately from the company's continued success consistently. The company is extremely conscious about the efficient use of capital employed and has always endeavoured to earn a return higher than the cost. Further, after giving due consideration to the cash generating capacity, expected capital needs of the business and strategic considerations, the board has recommended a dividend of 1000% for the third year in succession.

Table E Working capital performance of Hero Honda Motors Ltd

	March 2001	*March 2002*	*March 2003*	*March 2004*	*March 2005*	*March 2006*
Working Capital (₹ in crore)	203.71	–343.75	550.36	808.75	1077.25	1284.57
Average current assets (₹ in crore)	488.89	600.14	1101.51	1867.68	2323.26	2714.32
Avg. days of debtors	4	5	8	5	2	4
Avg. days of creditors	31	32	35	42	40	32
Gross working capital cycle (days)	33	27	28	22	16	17
Net working capital cycle (days)	2	–5	–7	–20	–24	–15
Liquidity ratios (times)						
Current ratio	1.44	0.61	1.49	1.64	1.72	1.82
Quick ratio	0.18	0.25	1.21	1.30	1.42	1.52
Interest cover	11.83	21.23	33.85	42.76	64.07	84.94

Table F Working capital cycle of automobile companies

Company Name	*2004*		*2005*		*2006*	
	Gross working capital cycle	*Net working capital cycle*	*Gross working capital cycle*	*Net working capital cycle*	*Gross working capital cycle*	*Net working capital cycle*
	(in days)					
Bajaj Auto	30.38	–15.43	24.18	–18.76	14.24	–10.56
Maharashtra Scooters	69.49	–74.21	78.40	–72.33	108.66	–63.08
TVS Motors	39.31	–11.93	38.71	–14.23	42.30	–11.01
Yamaha	113.16	50.38	85.01	44.85	94.29	54.45

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Table G Dividend payout by Hero Honda

Year	*Dividends (₹ in crore)*	*Retained earnings (₹ in crore)*	*Total Dividend Rate (in percentage)*	*Dividend per share (in ₹)*
March 2001	66.01	180.86	150	NA
March 2002	349.67	113.26	850	17
March 2003	405.49	175.27	900	18
March 2004	450.54	277.78	1000	20
March 2005	455.90	354.57	1000	20
March 2006	455.39	515.95	1000	20

The dividend payout by Bajaj Auto Ltd during past four years was as follows:

Year	*Dividends per share (in ₹)*	*Payout ratio (%)*
March 2003	14.00	29.68
March 2004	25.00	38.64
March 2005	25.00	39.55
March 2006	40.00	41.89

The adjusted closing prices of shares of Hero Honda Motors Ltd were as follows:

Year	*Share Price (in ₹)*
March 2001	140.35
March 2002	333.70
March 2003	188.40
March 2004	490.45
March 2005	548.15
March 2006	888.30

Discuss

1. Is the financing policy of Hero Honda Motors satisfactory? How is the unlevered capital structure of the firm justified?
2. What are the factors that are favouring a zero debt capital for the company? Is it always beneficial to have a low debt in the capital structure?
3. Is investment policy driving the growth of the firm? What are the key issues that the investment policy of the company is trying to address?
4. Are you satisfied with the working capital management of the company? Give reasons.
5. Is the dividend policy of the firm appropriate? What factors determine the existing dividend policy of the firm?

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