



FINANCIAL MANAGEMENT: World Edition



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e-book Edition 2019

ISBN: 978-1-98462-631-8 (e-book)

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In Collaboration with 3G E-Learning LLC. Originally Published in printed book format by 3G E-Learning LLC with ISBN 978-1-68094-788-5

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Preface

What do you think is the most important aspect of running an organization? Well, it is the money of course. To run any kind of successful company or business, the funds have to be very well managed. This efficient management and utilization of capital is called Financial Management. Financial management is one of the most important aspects in business. In order to start up or even run a successful business, you will need excellent knowledge in financial management. Managers must make sure that they have enough cash on hand to pay employees and suppliers even though they have more money going out than coming in during the early months of the business. This means the owner must make financial projections of these negative cash flows so he has some idea how much capital will be needed to fund the business until it becomes profitable. As a business grows and matures, it will need more cash to finance its growth. Planning and budgeting for these financial needs is crucial. Deciding whether to fund expansion internally or borrow from outside lenders is a decision made by financial managers. This book will help you build essential financial management skills that will enhance your personal tool set and ensure that you apply best practices when managing fiduciary responsibilities.

ORGANIZATION OF THE BOOK OR CONTENT COVERAGE

This book introduces students to the major concepts and analytical tools used in the theory and practice of financial management within global context. It is designed to provide you with an understanding of the scope and nature of the finance function and its role within management; the theory of finance and how it underpins the evaluation of investment, financing and dividend policies. This book will also develop your practical skills in the identification and analysis of financial problems.

This book is divided into Seven Chapters.

Chapter 1: An Introduction to Financial Management introduces about finance functions and approaches which is crucial for the success of any organization, be it private, government or non-government. Successful

enterprises watch their finances very closely and therefore take the right decisions at the right time, ultimately leading to success.

Chapter 2: Financial Planning covers the process of setting objectives, assessing assets and resources, estimating future financial needs, and making plans to achieve monetary goals. Many elements may be involved in this process, including investing, asset allocation, and risk management.

Chapter 3: Financial Statement Analysis deals with the process of reviewing and analyzing a company's financial statements to make better economic decisions. These statements include the income statement, balance sheet, statement of cash flows, and a statement of changes in equity.

Chapter 4: Capital Structure entails the meaning, concept, importance and factors of capital structure. The theories of capital structure are also elaborated.

Chapter 5: Cost of Capital focuses on the capital required to return necessary to make a capital budgeting project, such as building a new factory, worthwhile. Cost of capital includes the cost of debt and the cost of equity, and is used by companies internally to judge whether a capital project is worth the expenditure of resources, and by investors who use it to determine whether an investment is worth the risk compared to the return.

Chapter 6: Capital budgeting focuses on the process used for evaluating potential expenditures or investments that are significant in amount. It involves the decision to invest the current funds for addition, disposition, modification or replacement of fixed assets.

Chapter 7: Working Capital is about a financial metric which represents operating liquidity available to a business, organization or other entity, including governmental entities. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital.

A PEDAGOGICAL FRAMEWORK FOR STUDYING AND LEARNING

The book includes several features to enhance your learning experience:

Learning Outcomes - These Highlight the learning you will gain the diligent study of the material in each chapter.

Key Ideas - These are distributed in the book and highlighted in the margin for easy reference.

In-margin Glossary – Important terms and concepts are highlighted with boldfaces and italic type in the text.

Focus On - Each chapter provides a “Focus on” emphasizing on the emerging issue, practice, or opportunity in the relevant subject. Also, a “Focus on Ethics” entails an ethical issue relevant to chapter content.

Interesting Watch - To engage you with the text and deepen your knowledge, audio and video links are provided. Readers can access this information via cell phone or PC using internet.

Case Studies - These uncover what students need to create and provide an opportunity for the development of key skills such as communication, group working and problem solving.

End of Chapter Summaries - A brief version of main ideas, theories, and strategies are provided at the end of each chapter.

Review and Discussion Questions - These questions test students understanding of the chapter material and gain deeper insight.

Self-assessment Exercise - This is given to the students for progress check at the end of each chapter.

Critical Thinking Questions - These challenge students to expand on what they have just learned, discussing broader relationships, and interactions of the concepts in the chapter.

1

AN INTRODUCTION TO FINANCIAL MANAGEMENT

“Financial management may be defined as that area or set of administrative function in an organization which relate with arrangement of cash and credit so that organization may have the means to carry out its objective as satisfactorily as possible.”

—By Howard & Opton

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Financial management - an overview
- Understand finance function: meaning and approaches



KEY IDEAS

1. Business concern needs finance to meet their requirements in the economic world. Any kind of business activity depends on the finance. Hence, it is called as lifeblood of business organization.
2. The concept of finance includes capital, funds, money, and amount. But each word is having unique meaning. Studying and understanding the concept of finance become an important part of the business concern.
3. Finance is one of the important and integral part of business concerns, hence, it plays a major role in every part of the business activities. It is used in all the area of the activities under the different names.
4. Financial management process means a way by which appropriate expenses are been budgeted, planned, reported, tracked, controlled, evaluated and approved.

INTRODUCTION

Financial management is crucial for the success of any organization, be it private, government or non-government. Successful enterprises watch their finances very closely and therefore take the right decisions at the right time, ultimately leading to success. Most businesses have a well-structured finance department responsible for looking after the accounts and finances of the company.



Citation: <https://schoolworkhelper.net/financial-management-control/>

Financial management focuses on ratios, equity and debt. Financial managers are the people who will do research and based on the research, decide what sort of capital to obtain in order to fund the company's assets as well as maximizing the value of the firm for all the stakeholders. It also refers to the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the organization. It is the specialized function directly associated with the top management. The significance of this function is not seen in the 'Line' but also in the capacity of the 'Staff' in overall of a company. It has been defined differently by different experts in the field.



Citation: https://redqube.harlow-college.ac.uk/toolkits/play.php?template_id=204

The term typically applies to an organization or company's financial strategy, while personal finance or financial life management refers to an individual's management strategy. It includes how to raise the capital and how to allocate capital, i.e. capital budgeting. Not only for long term budgeting, but also how to allocate the short-term resources like current liabilities. It also deals with the dividend policies of the shareholders.

Economic environment

refers to all the external economic factors that influence buying habits of consumers and businesses and therefore affect the performance of a company.

FINANCIAL MANAGEMENT - AN OVERVIEW

Finance is the life-blood of economic enterprises. It is the pivot on which the whole business process functions. Finance provides security, stability and flexibility to both profit and non-profit organizations in order to develop goods and services to meet the demands. It enables the organizations to adopt and compete in changing **economic environments**.



Citation: <https://www.eipa.eu/product/financial-management-eu-structural-and-investment-funds/>

The basic desire of a business is to produce and distribute goods and services to the customers. This process requires the preliminary investment of funds in both fixed and current assets. Thus cash is invested in raw materials which are processed by making use of fixed assets and are sold. The rate of conversion of original capital investment decides and determines the profitability of a business. The profitability could be augmented if the rate of flow of funds could be accelerated while a slow rate may lead to low profits or losses. It is this flow of funds that is ultimately considered by financial management. It is therefore essential to plan and control the funds in order to ensure the flow at the expected level of production and distribution. Financial management is concerned with this process of financial planning and control.



Citation: <https://static1.squarespace.com/static/5a0c8a4749fc2bd263dbbd1a/t/5a31f808652dea4e8a2641f4/1513224210758/financial.jpg?format=2500w>

The term finance in real world has been interpreted variously by different finance scholars and experts. This is due to change in the concept of finance with change in time and circumstances. The earlier and old approach towards finance was concerned with acquiring of funds on reasonable terms and conditions and to pay the bills promptly. It laid stress on only on aspect of finance and therefore it was considered as too restrictive. The second approach was of the view that finance is concerned with cash. Since all business transactions ultimately resolve themselves into cash, all activities in an enterprise are considered to be the primary concern of the financial manager and as such this approach was thought as too broad to be meaningful. The third approach, a widely recognized approach, also known as managerial approach of finance or problem-centered approach is concerned with procurement and wise and optimal utilization of funds. The management approach to finance is a modern and a balanced one and modern finance scholars go by this approach and definition of some of the prominent experts of the modern era support this view.

Definition and Meaning of Finance

Finance describes the act of providing money, capital or other financial resources to assist in facilitating a loan or a sale. This term is commonly used within the financial industry, which includes areas such as banking and accounting. Individual careers that help comprise the financial industry include a financial adviser or analyst, a bond broker, a portfolio manager, an investment banker and a stockbroker.



Citation: <http://www3.fundsforngos.org/financial-management/2-what-is-financial-management/>

Individuals planning a financial career often major in subjects such as economics, accounting and business law. Within such majors, university students learn about the various facets of personal, government and corporate finance. An example of courses supporting such an education include business management classes, statistics classes, various economics courses, and courses which instruct students on the inner workings of different private and government monetary institutions, as well as their policies.

Businesses hoping to raise financial capital often seek the assistance of individuals trained to work in finance in order to secure the resources needed to start or grow a business. Attorneys specializing in certain financial genres, as well as other real estate professionals, accountants and business analysts, may also be called upon to assure that

capital strategy is both strong and effective. Within the world of finance, professionals routinely work together to create and manage strong investment opportunities.



Citation: <http://www.memuk.org/wp-content/uploads/2016/05/Finance.jpg>

In terms of its global application, there are three primary areas of finance. These areas are investments, financial management, and financial markets and institutions. While these three areas frequently overlap with one another, employment opportunities within each are more distinct. Individuals working in investment sectors tend to work more in direct sales transactions, financial planning or analysis of various securities. Individuals working in financial management may also focus on planning and security analysis, but tend to also work more specifically with an individual company or group and often tend to focus more on overseeing the group's working capital. Those working in money markets and other institutions generally focus on providing **liquidity** and capital to large banking and financial institutions.

Specific laws pertaining to finance vary among countries and may even vary within smaller jurisdictions. Most governments, however, strictly monitor financial transactions to protect individuals, businesses and institutions from incidents

Liquidity describes the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price.

Financial Management

of fraud or other potential hazards. Individuals trained in finance are also trained according to these laws and, in many instances, must obtain special license to work in financial sectors after undergoing a thorough examination process.



Citation: <https://gnims.edu.in/wp-content/uploads/2018/05/pexels-photo-886465.jpeg>

Definition of Finance

Finance is a term describing the study and system of money, investments, and other financial instruments.

- According to F. W. Paish, Finance may be defined as the position of money at the time it is wanted.
- In the words of John J. Hampton, the term finance can be defined as the management of the flows of money through an organization, whether it will be a corporation, school, bank or government agency.
- According to Howard and Upton, “finance may be defined as that administrative area or set of administrative functions in an organization which relates with the arrangement of each and credit so that the organization may have the means to carry out the objectives as satisfactorily as possible.
- In the words of Bonneville and Dewey, Financing consists in the raising, providing, managing of all the money, capital or funds of any kind to be used in connection with the business.
- As put forth by Hurband and Dockery in his book ‘Modern Corporation Finance’, finance is defined as “an organism composed of a myriad of separate enterprise, each working for its own ends but simultaneously making a contribution to the system as a whole, some force is necessary to bring about

direction and co-ordination. Something must direct the flow of economic activity and facilitate its smooth operation. Finance is the agent that produces this result”.

- The Encyclopedia Britannica defines finance as “the act of providing the means of payment.” It is thus the financial aspect of corporate planning which may be described as the management of money.

An analysis of the aforesaid definition, makes it clear that finance directs the flow of economic activity and facilitates the smooth operation. Finance provides the required stimulus for continued business operations of all categories. Finance is essential for expansion, diversification, modernization, establishment, of new projects and so on. The financial policy of any organization to a greater extent, determines not only its existence, and survival but also the performance and success of that organization. Finance is required for investment, purposes as well as to meet substantial capital expenditure projects.

Functions of Finance

According to Paul G. Hasings, “finance” is the management of the monetary affairs of a company. It includes determining what has to be paid for and when, raising the money on the best terms available, and devoting the available funds to the best uses. Kenneth Midgley and Ronald Burns state: “Financing is the process of organizing the flow of funds so that a business can carry out its objectives in the most efficient manner and meet its obligations as they fall due.”



Citation: https://esensesoftware.com/images/default-source/generic/finance-2-size-article-main.jpg?sfvrsn=67f5e9a0_4

Finance squeezes the most out of every available rupee. To get the best out of the available funds is the major task of finance, and the finance manager performs this task most effectively if he is to be successful. In the words of Mr. A. L. Kingshott, "Finance is the common denominator for a vast range of corporate objectives, and the major part of any corporate plan must be expressed in financial terms."

The description of finance may be applied to money management provided that the following three objectives are properly noted:

Many activities associated with finance such as saving, payment of things, giving or getting credit, do not necessarily require the use of money. In the first place, the conduct of international trade has been facilitated. The development of the pecuniary unit in the various commercial nations has given rise to an international denominator of values. The pecuniary unit makes possible a fairly accurate directing of capital to those parts of the world where it will be most productive. Within any given country, the flow of capital from one region to another is guided in a similar manner.

The term 'finance' refers to the financial system in a rudimentary or traditional economy, that is, an economy in which the per capita output is low and declining over a period of time. The financial organization in rudimentary finance is characterized by the absence of any financial instruments of the saving deficit units of their own which they can issue and attract savings. There will not be any inducement for higher savings by offering different kinds of financial assets to suit the varied interests and preferences of the investing public. The other characteristic of such a financial system is that there are no markets where firms can compete for private savings.

Types of Finance

The role of finance is very crucial. It is the backbone of every activity.



Citation: <https://static1.squarespace.com/static/5abb7c12d274cb288dbe4c12/t/5b98dc6f8a922d3b25bbda4b/1536744563247/STAT-banner-financial.jpg?format=1500w>

Business Finance

The term 'business finance' is very comprehensive. It implies finances of business activities. The term, 'business' can be categorized into three groups: commerce, industry and service. It is a process of raising, providing and managing of all the money to be used in connection with business activities. It encompasses finance of sole proprietary organizations, partnership firms and corporate organizations. No doubt, the aforesaid organizations have different characteristics, features, distinct regulations and rules. And financial problems faced by them vary depending upon the nature of business and scale of operations. However, it should be remembered that the same principles of finance are applicable to large and small organizations, proprietary and nonproprietary organizations.

According to Guthmann & Dougall, business finance can be broadly defined as the activity concerned with planning, raising, controlling and administering of funds used in the business.



Citation: <https://s17026.pcdn.co/wp-content/uploads/sites/9/2017/03/Financial-management-14317.jpeg>

Business finance deals with a broad spectrum of the financial activities of a business firm. It refers to the raising and procurement of funds and their appropriate utilization. It includes within its scope commercial finance, industrial finance, proprietary finance corporation finance and even agricultural finance. The subject of business finance is much wider than that of corporation finance. However, since corporation finance forms the lion's share in the business activity, it is considered almost inter-changeable with business finance. Business finance, apart from the financial environment and strategies

Financial Management

of financial planning, covers detailed problems of company promotion, growth and pattern. These problems of the corporate sector go a long way in widening the horizon of business finance. The finance manager has to assume the new responsibility of managing the total funds committed to total assets and allocating funds to individual assets in consonance with the overall objectives of the business enterprise.

Direct Finance

The term 'direct', as applied to the financial organization, signifies that savings are effected directly from the saving-surplus units without the intervention of financial institutions such as investment companies, insurance companies, unit trusts, and so on.

Indirect Finance

The term 'indirect finance' refers to the flow of savings from the savers to the entrepreneurs through intermediary financial institutions such as investment companies, unit trusts and insurance companies, and so on. Finance administers economic activities. The scope of finance is vast and determined by the financial needs of the business enterprise, which have to be identified before any corporate plan is formulated. This eventually means that financial data must be obtained and scrutinized. The main purpose behind such scrutiny is to determine how to maintain financial stability.



Citation: <http://www.focusfinancial.com/wp-content/uploads/2018/09/advice-business-colleagues-1161465.jpg>

Public Finance

It is the study of principles and practices pertaining to acquisition of funds for meeting the requirements of government bodies and administration of these funds by the government.

Private Finance

It is concerned with procuring money for private organization and management of the money by individuals, voluntary associations and corporations. It seeks to analyse the principles and practices of managing one's own daily affairs. The finance of non-profit organization deals with the practices, procedures and problems involved in the financial management of educational, charitable and religious and the like organizations.

Corporation Finance

Corporation finance deals with the financial problems of a corporate enterprise. These problems include the financial aspects of the promotion of new enterprises and their administration during their early period ; the accounting problems connected with the distinction between capital and income, the administrative problems arising out of growth and expansion, and, finally, the financial adjustments which are necessary to bolster up to rehabilitate a corporation which has run into financial difficulties. The term 'corporation finance' includes, apart from the financial environment, the different strategies of financial planning. It includes problems of public deposits, inter-company loans and investments, organized markets such as the stock exchange, the capital market, the money market and the bill market. Corporation finance also covers capital formation and foreign capital and collaborations.

Nature, Significance, and Scope of Financial Management

Financial management is an organic function of any business. Any organization needs finances to obtain physical resources, carry out the production activities and other business operations, pay compensation to the suppliers, etc.



Citation: <https://static1.squarespace.com/static/5a56479351a58493847d6e08/t/5a8d5075652deac0dfefe97d/1519209324419/Homepage.png?format=1500w>

There are many theories around financial management:

- Some experts believe that financial management is all about providing funds needed by a business on terms that are most favorable, keeping its objectives in mind. Therefore, this approach concerns primarily with the procurement of funds which may include instruments, institutions, and practices to raise funds. It also takes care of the legal and accounting relationship between an enterprise and its source of funds.
- Another set of experts believe that finance is all about cash. Since all business transactions involve cash, directly or indirectly, finance is concerned with everything done by the business.
- The third and more widely accepted point of view is that financial management includes the procurement of funds and their effective utilization. For example, in the case of a manufacturing company, financial management must ensure that funds are available for installing the production plant and machinery. Further, it must also ensure that the profits adequately compensate the costs and risks borne by the business.

In a developed market, most businesses can raise capital easily. However, the real problem is the efficient utilization of the capital through effective financial planning and control.



Citation: <https://www.accreda.eu/wp-content/uploads/2016/07/financial-web.jpg>

Further, the business must ensure that it deals with tasks like ensuring the availability of funds, allocating them, managing them, investing them, controlling costs, forecasting financial requirements, planning profits and estimating returns on investment, assessing working capital, etc.

The Scope of Financial Management

The introduction to financial management also requires you to understand the scope of financial management. It is important that financial decisions take care of the shareholders' interests. Further, they are upheld by the **maximization** of the wealth of the shareholders, which depends on the increase in net worth, capital invested in the business, and plowed-back profits for the growth and prosperity of the organization. The scope of financial management is explained in the diagram below:

Maximization refers to the act of making something as large or great as possible. If you are interested in the maximization of profits, you want to get as much money as possible out of your investments.

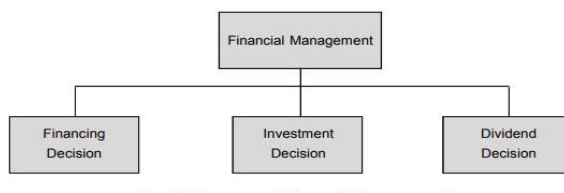


Figure 1: The scope of financial management.

Citation: <https://www.toppr.com/guides/business-environment/business-functions/financial-management/>

You can understand the nature of financial management by studying the nature of investment, financing, and dividend decisions.

Core Financial Management Decisions

In organizations, managers in an effort to minimize the costs of procuring finance and using it in the most profitable manner, take the following decisions:

Investment Decisions: Managers need to decide on the amount of investment available out of the existing finance, on a long-term and short-term basis. They are of two types:

- Long-term investment decisions or Capital Budgeting mean committing funds for a long period of time like fixed assets. These decisions are irreversible and usually include the ones pertaining to investing in a building and/or land, acquiring new plants/machinery or replacing the old ones, etc. These decisions determine the financial pursuits and performance of a business.
- Short-term investment decisions or Working Capital Management means committing funds for a short period of time like current assets. These involve decisions pertaining to the investment of funds in the inventory, cash, bank deposits, and other short-term investments. They directly affect the liquidity and performance of the business.



Citation: <https://www.wikihow.com/images/9/95/Become-a-Money-Manager-Step-6.jpg>

Financing Decisions: Managers also make decisions pertaining to raising finance from long-term sources (called Capital Structure) and short-term sources (called Working Capital). They are of two types:

- **Financial Planning decisions** which relate to estimating the sources and application of funds. It means pre-estimating financial needs of an organization to ensure availability of adequate finance. The primary objective of financial planning is to plan and ensure that the funds are available as and when required.
- **Capital Structure decisions** which involve identifying sources of funds. They also involve decisions with respect to choosing external sources like issuing shares, bonds, borrowing from banks or internal sources like retained earnings for raising funds.

Dividend Decisions: These involve decisions related to the portion of profits that will be distributed as dividend. Shareholders always demand a higher dividend, while the management would want to retain profits for business needs. Hence, this is a complex managerial decision.

Goals of Financial Management

The goals of financial management can be classified in many ways. Official goals, operative goals and operational goals are one classification. Official goals are the general aims of the organization. Maximization of return on investment and market value per share may be termed as official goals of financial management. Operative goals indicate what the organization is really attempting to do. They are focused and help in choice making. Expected return on investment, cost of capital, debt-equity norms, etc. along with time horizon are specified or their acceptable ranges/limits are static keeping in view the official goals. The operational goals of financial management are more directed quantitative and verifiable. The scale, mix and timing of specific form of finance are detailed. The official, operative and operational goals are structured with a pyramidal shape, the official goals at the top (concerned with the top executives), operative goals at the middle (concerned with middle management) and operational goals at the base.



Citation: https://static1.squarespace.com/static/5b4523cc5ffd204a13862c42/5b763dfecd8366dcb3b64857/5b773e140ebbe808ece3d696/1536685840129/Depositphotos_70905749_original.jpg?format=1500w

The financial management goals can also be classified in a functional way. Return related goals, solvency related goals, liquidity related goals, valuation related goals, risk related goals, and cost related goals and so on. Return related goals refer to the aims on minimum, average and, maximum returns. What should be the minimum return from a project in order to accept the same, what should be average return the firm should settle for and what is the maximum return possible (for risk increases with return). Similarly, goals as to solvency, liquidity, market value etc., can be thought of you have to state to what extent the stated goal factor is important and be actively pursued/and the extent of the goal factor required; the minimum, average and the maximum levels be specified.

Profit Maximization

Profit maximization is a stated goal of financial management. Profit is the excess of revenue over expenses. Profit maximization is therefore maximizing revenue given the expenses, or minimizing expenses given the revenue or a simultaneous maximization of revenue and minimization of expenses. Revenue maximization is possible through pricing and scale strategies. By increasing the selling price one

may achieve revenue maximization, assuming demand does not fall by a commensurate scale. By increasing quantity sold by exploiting the price-elasticity of the demand factor, **revenue** can be maximized. Expenses minimization depends on variability of costs with volume, cost consciousness and market conditions for inputs. So, a mix of factors is called for profit maximization.

Revenue is the income that a business has from its normal business activities, usually from the sale of goods and services to customers.



Citation: <https://govsense.com/wp-content/uploads/2018/05/picture-for-gs-blog-1-1198x675.jpg>

However, profit maximization is not very much favored. Certain limitations are pointed out. First, concept of profit is vague. There are several concepts of profit like gross profit, profit before tax, profit after tax, net profit, divisible profit and so on. So the reference to the profit has to be clear. Second, profit maximization in the long-run or in the short-run is to be stated clearly. Long-run or in the short-run profit orientations differ in the nature, emphasis and strategies. Third, profit maximization does not consider the scale factors. Size of business and level of profit have to be related. Otherwise no sensible interpretation of performance or efficiency is possible. Fourth, profit has to be related to the time factor. Inflation eats up money value. A rupee today is worthier today than tomorrow and day after. Time value of money is not considered in profit maximization.

Profitability Maximization

Profit as an absolute figure conveys less and conceals more. Profit must be related to either sales, capacity utilization, production or capital invested. Profit when expressed in relation to the above size or scale factors it acquires greater meaning. When so expressed, the relative profit is known as profitability. Profit per rupee sales, profit

per unit production, profit per rupee investment, etc., are more specific. Hence, the superiority of this goal to the profit maximization goal.



Citation: http://www.corporateserve.com/logo/dreamstimemedia_29837879.jpg

Further profit per rupee investment or return on investment, (ROI) is a comprehensive measure. $ROI = \text{Return or Profit} / \text{Average Capital invested}$. Profit divided by sales measures the profit per rupee of sales and sales divided by investment measures the number of times the capital is turned over. The former is an index of profit earning capacity and the latter is an index of activeness of the business. Maximization of profitability (ROI) is possible through either the former or the latter or both.

The favorable scores of this objective are the same as those of the profit maximization objective. The unfavorable scores of this objective again are the same as those of the profit maximization objective except one aspect. Profit maximization goal does not relate profit to any base. But profitability maximization relates profit to sales and/or investment. Hence it is a relative measure. So it is better than profit maximization goal on this score. But as other limitations continue, this objective too gets only a 'qualified' report as to its desirability.

EPS Maximization

Maximization Earnings Per Share (EPS) involves maximizing earnings after tax given the number of outstanding equity shares. This goal is similar to profitability maximization in respect of merits and demands. It is very specific both as to the type of profit and the base to which it is compared. One disadvantage is that EPS maximization may lead to value depletion too, because effect of dividend policy on value is totally discarded.



Citation: <http://img1.wsimg.com/isteam/stock/gpgDbzn/:/rs=w:+0,h:+0,cg:true,m/cr=w:+0,h:+0,a:cc>

Liquidity Maximization

Liquidity refers to the ability of a business to honor its short-term liabilities as and when these become due. This ability depends on the ratio of current assets to current liabilities, the maturity patterns of current assets and 'the current liabilities, the composition of current assets, the quality of non-cash current assets; the relations with the short-term creditors; the relations with bankers and the like. A higher current ratio, a perfect match between the maturity of current assets and current liabilities, a well balanced composition of current assets, healthy and 'moving' current assets, i.e., those that can be converted into liquid assets with much ease and no loss, understanding creditors and ready to help bankers would help maintaining a high-liquidity level for a business. All these are not easy to obtain and these involve costs and risks.



Citation: http://static.twentyoverten.com/58d56269203dcd1251c187d6/SyCv9jrz-/checklist-2077023_1920.jpg

Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities.

How far is it a good goal? It is a good goal, though not a wholesome one. Every business has to generate sufficient liquidity to meet its day-to-day obligations. Last, the business would suffer. A liquidity rich business can exploit some rare opportunities like buying inventory in large quantity when price is lower, lend to the call money borrowers when the interest rate is high, retire short-term-creditors taking advantage of cash discounts and so on. So many benefits accrue. But, high liquidity might result in idle cash resources and this should be avoided. Yes, excess liquidity and **profitability** move in the opposite directions, they are conflicting goals and have to be balanced.

Importance of Financial Management in an Organization

Finance is actually that soul out of business relationship. Importance of financial management is to meet each prerequisite of the business concern. Every business concern should keep up sufficient finance with regards to their smooth functioning of their business operations. Also in addition continue growth

is one of the importance of financial management in an organization to achieve the future goal. Now days, there is necessity to give importance of financial management in modern business to achieve objective related to finance of a company. People cannot neglect the importance of financial management in business planning and controlling at all conditions or stages of your business.



Citation: <https://corporatefinanceinstitute.com/resources/knowledge/finance/what-is-finance-definition/>

There is a huge importance of financial management in business planning and controlling for your financial stability and to keep you away from bankruptcy. Here we will see what is the importance of financial management in points mentioned below:

- **Financial Planning:** Financial management its importance is financial planning. It decides each financial necessity associated with business concern. Also financial planning associates need to take prompts and correct measures instead of worries in later stage of financial management life-cycle of a company. Financial planning looks a crucial area associated with business concern. Typically, all the credit for business success is mostly depends on the financial planning of a company.
- **Safeguarding / Protecting Funds:** Importance of financial management include protecting finance towards achieving business goals. One has to measure

the areas where funds are required and allocate it well in all the areas for smooth functioning of business. Overspending on one project and impact other business operations as they may lack finance in many cases. It is crucial to safeguard funds and invest wisely.

- **Allocation of Funds:** Importance of financial management in an organization is to allocate funds appropriately. When making proper use of allocated finance to assets enhance the operational proficiency for the business concern. Whenever the finance specialists makes use of the funds appropriately and allocate it wisely, they can reduce business expense and increase capital estimated for a company.



Citation: <http://mcfcu.org/portfolio-view/wealth-management/>

- **Investment Opportunities:** As a person, if you are good at managing your finance and saving then you get opportunities to explore investment. Investment opportunities will assist you in creating wealth so that you can enjoy your retirement period. There are various investment opportunities you can explore like investing in stocks, gold, mutual funds, property, lands,

etc. You can study about investing in detail to know the risk and return of investment. Depending upon your risk ability you can then choose the appropriate investment options.

- **Financial Decision:** Its importance of financial management points is financial decision. Once financial choice according to the business concern has made, it cannot be rewind. As finance once spend will not be repaid again for any wrong decision made. Financial selection might impact the whole business operation. Since it has an instant relationship with all the departments of a company. For example: production, advertising, rents, salary to human resources and so on.
- **Economic Growth and Stability:** Proper financial planning will ensure your economic growth. Gradually you will expand your wealth creation which will help you to grow financially. Important thing in someone's life is financial stability. Only way to ensure your financial stability is through economic growth and only option to ensure the same is through financial management.
- **Improve Standard of Living:** Once you have learned and taken good knowledge on financial management, this will not only provide you financial stability and peace of mind but also it will improve your standard of living. Your economic growth will transform into better standard of living.



Citation: <http://ctman.com.au/services/financial-management/>

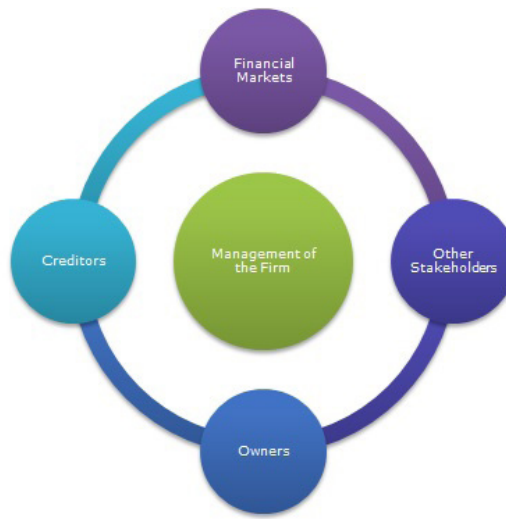


<https://www.youtube.com/watch?v=75dPbNemehk>

- Valuation of a Company: Importance of financial management in an organization in the area of enlarging the variety of speculators and the business concern. Extreme point concerning of any business is that they will achieve maximum gain with greater efficiency. It may be related to increasing production or expanding business to other countries. A great management and financial specialists can assist in improving valuation of any company.
- Tax Planning: Your financial planning should also include your tax planning. When failing to plan your taxes appropriately, it will lead you spend more out of your pocket. For example: If you can analyze that current fiscal year you will be spending less on taxes but in next year you are more likely to pay heavy taxes then you should manage your budget and saving accordingly. This will help you towards economic growth else you may run out of cash and may lead in disturbance in your investment decisions.
- Capital Reserves: Money have always been imaginable and possible really when the business earning rises to higher levels and expansion arises. Here is an importance of financial management in success of business by ways of expanding as well as creating capital reserves in the book of companies accounts.

Financial Management Objectives

Financial Management means planning, organizing, directing and controlling the financial activities such as procurement and utilization of funds of the enterprise. It means applying general management principles to financial resources of the enterprise. In simple terms objective of Financial Management is to maximize the value of firm, however it is much more complex than that. The management of the firm involves many stakeholders, including owners, creditors, and various participants in the financial market. The same is shown in below diagram.



Citation: <https://relivingmbadays.wordpress.com/2013/04/28/objective-of-financial-management/>

Effective procurement and efficient use of finance lead to proper utilization of the finance by the business concern. It is the essential part of the financial manager. Hence, the **financial manager** must determine the basic objectives of the financial management. Identifying what type of financial management approach the company is going to use is important to how the organization conducts business. They help provide a framework for decision-making and policy creation.

The main objectives of financial management are-

- **Profit maximization:** Profit maximization entails increasing profits over their net worth. In financial management this is seen as a tough sell. It is more of a short-term plan to more money which sounds nice, but does not always play out smoothly. In profit maximization, any activities or events that can be done to increase profits are priority. The term profit can be defined as the amount of income the shareholders or owners of the company receive, or, it can refer to the overall financial efficiency of a business. Generally speaking, businesses that use the profit objective seek to use as little resources as possible (input) to generate

Financial managers

have the responsibility of overseeing the finances of major companies, agencies and everything in between. Along with their teams, they coordinate accounting and produce financial reports, cash-flow statements and profit projections.

as much money as possible (output). By investing only the amount needed to execute a profit-oriented financial plan, the shareholders can maximize their incomes while continuing to run an effective business.



Citation: <http://www.aqusagtechnologies.com/wp-content/uploads/2015/09/profit1.jpg>

When considering the profit maximization plan, it is important to define what *profit* means to your company. If it means money in the pocket – let it be known. If it means long-term benefits, or the rate of profit, that must be discussed and agreed upon. If not, there can be complications later. Another technicality of profit maximization to consider is the quality of benefits. Quality of benefits only means the certainty with which you can assume the benefits (income) will actually arrive. If the quality is low, there is risk associated with the benefits. Likewise, with high quality, the assumption is the benefits will likely be realized. While profit-gearred businesses get excited over dollar signs, it is best to use your wise judgment before nose-diving into a potentially devastating investment situation.



Citation: <https://forestrypedia.com/profit-maximization-and-loss/>

The main objective of financial management is profit maximization. The finance manager tries to earn maximum profits for the company in the short-term and the long-term. He cannot guarantee profits in the long term because of business uncertainties. However, a company can earn maximum profits even in the long-term, if:-

- The Finance manager takes proper financial decisions.
- He uses the finance of the company properly.
- **Wealth maximization:** Wealth maximization (shareholders' value maximization) is also a main objective of financial management. Wealth maximization means to earn maximum wealth for the shareholders. So, the finance manager tries to give a maximum dividend to the shareholders. He also tries to increase the market value of the shares. The market value of the shares is directly related to the performance of the company. Better the performance, higher is the market value of shares and vice-versa. So, the finance manager must try to maximize shareholder's value.



Citation: <http://www.kdfinserv.co.in/wealth-management.html>

In wealth maximization, the company is concerned with increasing their net worth. This is not to say that they are not interested in making a profit, because they certainly are, but they pay more attention to cash flow and dividends. This financial management technique is more focused on the long-term success and health of the company than it is on immediate monetary returns. While decades past, profit maximization was the primary avenue for planning and managing finances, the benefits of wealth maximization are finally being seen. Companies that utilize this approach to financial management experience more success, for longer periods of time and a generally healthy business environment.

As opposed to profit maximization's "quality does not really matter" mantra, wealth maximization proponents take both quantity and quality into consideration. They thoroughly evaluate how much the investment return would be, what the risks are and how long it will take to see the benefits. Using this objective framework for financial management involves making changes to cash flow trends. This way, current assets can be analyzed appropriately and the remaining money can be utilized for further investment, which means, more long-term financial stability.

- **Proper estimation of total financial requirements:** Proper estimation of total financial requirements is a very important objective of financial management. The finance manager must estimate the total financial requirements of the company. He must find out how much finance is required to start and run

the company. He must find out the fixed capital and working capital requirements of the company. His estimation must be correct. If not, there will be shortage or surplus of finance. Estimating the financial requirements is a very difficult job. The finance manager must consider many factors, such as the type of technology used by company, number of employees employed, scale of operations, legal requirements, etc.

- **Proper mobilization:** Mobilization (collection) of finance is an important objective of financial management. After estimating the financial requirements, the finance manager must decide about the sources of finance. He can collect finance from many sources such as shares, **debentures**, bank loans, etc. There must be a proper balance between owned finance and borrowed finance. The company must borrow money at a low rate of interest.
- **Proper utilization of finance:** Proper utilization of finance is an important objective of financial management. The finance manager must make optimum utilization of finance. He must use the finance profitably. He must not waste the finance of the company. He must not invest the company's finance in unprofitable projects. He must not block the company's finance in inventories. He must have a short credit period.
- **Maintaining proper cash flow:** Maintaining proper cash flow is a short-term objective of financial management. The company must have a proper cash flow to pay the day-to-day expenses such as purchase of raw materials, payment of wages and salaries, rent, electricity bills, etc. If the company has a good cash flow, it can take advantage of many opportunities such as getting cash discounts on purchases, large-scale purchasing, and giving credit to customers, etc. A healthy cash flow improves the chances of survival and success of the company.
- **Survival of company:** Survival is the most important objective of financial management. The company must survive in this competitive business world. The finance

Debenture is a medium- to long-term debt instrument used by large companies to borrow money, at a fixed rate of interest.

manager must be very careful while making financial decisions. One wrong decision can make the company sick, and it will close down.

- **Creating reserves:** One of the objectives of financial management is to create reserves. The company must not distribute the full profit as a dividend to the shareholders. It must keep a part of its profit as reserves. Reserves can be used for future growth and expansion. It can also be used to face contingencies in the future.
- **Proper coordination:** Financial management must try to have proper coordination between the finance department and other departments of the company.
- **Create goodwill:** Financial management must try to create goodwill for the company. It must improve the image and reputation of the company. Goodwill helps the company to survive in the short-term and succeed in the long-term. It also helps the company during bad times.



Citation: <https://corporatefinanceinstitute.com/resources/knowledge/accounting/pension-accounting/>

- **Increase efficiency:** Financial management also tries to increase the efficiency of all the departments of the company. Proper distribution of finance to all the departments will increase the efficiency of the entire company.

- **Financial discipline:** Financial management also tries to create a financial discipline. Financial discipline means:-
 - i. To invest finance only in productive areas. This will bring high returns (profits) to the company.
 - ii. To avoid wastage and misuse of finance.
- **Reduce cost of capital:** Financial management tries to reduce the cost of capital. That is, it tries to borrow money at a low rate of interest. The finance manager must plan the capital structure in such a way that the cost of capital is minimized.
- **Reduce operating risks:** Financial management also tries to reduce the operating risks. There are many risks and uncertainties in a business. The finance manager must take steps to reduce these risks. He must avoid high-risk projects. He must also take proper insurance.
- **Prepare capital structure:** Financial management also prepares the capital structure. It decides the ratio between owned finance and borrowed finance. It brings a proper balance between the different sources of capital. This balance is necessary for liquidity, economy, flexibility and stability.



<https://www.youtube.com/watch?v=a7WzthdWIHw>

FINANCE FUNCTION: MEANING AND APPROACHES

The Finance Function is a part of financial management. Financial Management is the activity concerned with control and planning of financial resources. In a business, the finance function involves the acquiring and utilization of funds necessary for efficient operations. Finance is the lifeblood of a business without it things would not run smoothly. It is the source to run any organization, it provides the money, and it acquires the **money**.

Money is any item or verifiable record that is generally accepted as payment for goods and services and repayment of debts, such as taxes, in a particular country or socio-economic context.



Citation: <http://adayo.net/financial-management/>

Finances are the cornerstone of every business. The prime goal of any organization would be to garner huge profits and this is only possible with proper management of the finances. Therefore, effectual finance management is imperative for every organization as it leads to enhanced profits and reduction in the operational cost. A finance manager plays an important role in the management of a business organization as he manages all the activities related to finance.

Meaning of Finance Function

Finance function is the most important of all business functions. It remains a focus of all activities. It is not possible to substitute or eliminate this function because the business will close down in the absence of finance. The need for money is continuous. It starts with the setting up of an enterprise and remains at all times. The development and expansion of business rather needs more commitment for funds. The funds will have to be raised from various sources. The sources will be selected in relation to the implications attached with them. The receiving of money is not enough, its utilization is more important.



Citation: <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/getting-more-out-of-offshoring-the-finance-function>

The money once received will have to be returned also. If its use is proper then its return will be easy otherwise it will create difficulties for repayment. The management should have an idea of using the money profitably. It may be easy to raise funds but it may be difficult to repay them. The inflows and outflows of funds should be properly matched.

Approaches to Finance Function

A number of approaches are associated with finance function but for the sake of convenience, various approaches are divided into two broad categories:

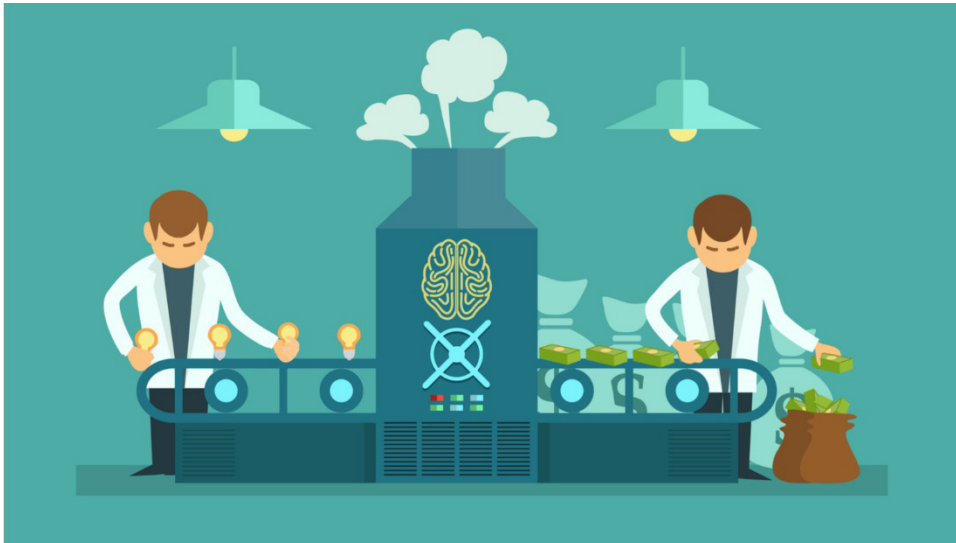
- The Traditional Approach
- The Modern Approach

There are definitely two approaches to determine the functions of financial management. In first category, the primary functions of financial management is to achieve goals with respect to liquidity as well as profits. In next category, the secondary

functions of financial management for an organization is to define the technique, methods and strategies to manage and control assets and funds.

The Traditional Approach

The traditional approach to the finance function relates to the initial stages of its evolution during 1920s and 1930s when the term 'corporation finance' was used to describe what is known in the academic world today as the 'financial management'. According to this approach, the scope, of finance function was confined to only procurement of funds needed by a business on most suitable terms.



Citation: <https://www.raconteur.net/digital-transformation/how-to-digitally-transform-the-finance-function>

The utilization of funds was considered beyond the purview of finance function. It was felt that decisions regarding the application of funds are taken somewhere else in the organization. However, institutions and instruments for raising funds were considered to be a part of finance function. The scope of the finance function, thus, revolved around the study of rapidly growing capital market institutions, instruments and practices involved in raising of external funds. The traditional approach to the scope and functions of finance has now been discarded as it suffers from many serious limitations:

- It is outsider-looking in approach that completely ignores internal decision making as to the proper utilization of funds.

- The focus of traditional approach was on procurement of long-term funds. Thus, it ignored the important issue of working capital finance and management.
- The issue of allocation of funds, which is so important today, is completely ignored.
- It does not lay focus on day to day financial problems of an organization.

The Modern Approach

The modern approach views finance function in broader sense. It includes both rising of funds as well as their effective utilization under the purview of finance. The finance function does not stop only by finding out sources of raising enough funds; their proper utilization is also to be considered. The cost of raising funds and the returns from their use should be compared. The funds raised should be able to give more returns than the costs involved in procuring them. The utilization of funds requires decision making. Finance has to be considered as an integral part of overall **management**. So finance functions, according to this approach, covers financial planning, rising of funds, allocation of funds, financial control etc.

Management consists of the interlocking functions of creating corporate policy and organizing, planning, controlling, and directing an organization's resources in order to achieve the objectives of that policy.



Citation: <https://blog.accela.asia/2017/04/5-ways-build-tech-integrated-finance-function/>

The new approach is an analytical way of dealing with financial problems of a firm. The techniques of models, mathematical programming, simulations and financial engineering are used in financial management to solve complex problems of present day finance. The modern approach considers the three basic management decisions, i.e., investment decisions, financing decisions and dividend decisions within the scope of finance function.

Aims of Finance Function

The primary aim of finance function is to arrange as much funds for the business as are required from time to time. This function has the following aims:

Estimating the Amount of Capital Required:

The most basic function of a finance manager is the estimation of the capital because funds are required for both long term and short term. The firm requires capital so that it can meet its liability with no delay, benefit from early business opportunities, pay for resources, operational cost etc. Sufficient capital is also required so that the firm can face any crisis like recession and bottleneck.

This is the foremost function of the financial manager. Business firms require capital for:

- purchase of fixed assets,
- meeting working capital requirements, and
- Modernization and expansion of business.

The financial manager makes estimates of funds required for both short-term and long-term.

Determining Capital Structure:

For the determination of the capital structure, the financial manager must ensure that the earning rate is higher than the rate of interest on the borrowed amount. A fine capital structure is required to minimize operational cost and to maximize the shareholder's profits.

Once the requirement of capital funds has been determined, a decision regarding the kind and proportion of various sources of funds has to be taken. For this, financial manager has to determine the proper mix of equity and debt and short-term and long-term debt ratio. This is done to achieve minimum cost of capital and maximize shareholders wealth.



Citation: <http://www.yourarticlelibrary.com/stock-exchange/14-important-factors-affecting-the-choice-of-capital-structure/1042>

Choice of Sources of Funds:

Before the actual procurement of funds, the finance manager has to decide the sources from which the funds are to be raised. The management can raise finance from various sources like equity shareholders, preference shareholders, debenture-holders, banks and other financial institutions, public deposits, etc.

For proper financial management, it is imperative to find the various sources from where the firm can raise funds. The organization can raise funds through different sources including equity and preference shares, debentures, banks, financial institutions and other sources. The funds can be raised for short as well as long period.

Procurement of Funds:

The financial manager takes steps to procure the funds required for the business. It might require negotiation with creditors and financial institutions, issue of prospectus, etc. The **procurement**

Procurement is the process of finding, agreeing terms, and acquiring goods, services, or works from an external source, often via a tendering or competitive bidding process.

Financial Management

of funds is dependent not only upon cost of raising funds but also on other factors like general market conditions, choice of investors, government policy, etc.



Citation: <https://www.lstmed.ac.uk/about/procurement>

While acquiring funds, the financial manager needs to follow some basic steps such as legal formalities and documentation required. He might also need to negotiate with the financial institutions. The factors affecting procurement are the market conditions, the policy of the government, investor's choice, and many more.

Utilization of Funds:

The funds procured by the financial manager are to be prudently invested in various assets so as to maximize the return on investment: While taking investment decisions, management should be guided by three important principles, viz., safety, profitability, and liquidity. It is the task of the finance manager to ensure that the funds are invested wisely so as to garner maximum ROI. While investing, the firm must take care of safety, profitability, and liquidity of the funds. The funds must be utilized in such a way that the firm does not face its shortage in near future.

Disposal of Profits or Surplus:

The financial manager has to decide how much to retain for ploughing back and how much to distribute as dividend to shareholders out of the profits of the company. The factors which influence these decisions include the trend of earnings of the company, the trend of the market price of its shares, the requirements of funds for self-financing the future programs and so on. Effectual finance management involves analyzing the

funds that can be invested for proper working of the organization and distributing the rest among the shareholders. The firm's earning must be in such a way that a large proportion can be distributed among the investors.



Citation: <https://surplusservice.com/markets-served/non-profit-organizations/>

Management of Cash:

Management of cash and other current assets is an important task of financial manager. It involves forecasting the cash inflows and outflows to ensure that there is neither shortage nor surplus of cash with the firm. Sufficient funds must be available for purchase of materials, payment of wages and meeting day-to-day expenses. A financial manager needs to manage the cash in such a way that there is neither shortage nor surplus and daily expenses can be met without any hassles. This can be done by forecasting cash inflows and outflows and balancing them. The manager must ensure that sufficient funds are always available to purchase material and meet daily expenses.

Financial Control:

Evaluation of financial performance is also an important function of financial manager. The overall measure of evaluation is Return on Investment (ROI). The other techniques of financial control and evaluation include budgetary control, cost control, internal audit, break-even analysis and ratio analysis. The financial manager must lay emphasis on financial planning as well.

Interface between Finance and Other Functions

Finance is the study of money management, the acquiring of funds (cash) and the directing of these funds to meet particular objectives. Good financial management helps businesses to maximize returns while simultaneously minimizing risks.



Citation: <https://www.ciopages.com/accounting-finance-transformation/>

Financial management is an integral part of overall management and not merely a staff function. It is not only confined to fund raising operations but extends beyond it to cover utilization of funds and monitoring its uses. These functions influence the operations of other crucial functional areas of the firm such as production, marketing and human resources. Hence, decisions in regard to financial matters must be taken after giving thoughtful consideration to interests of various business activities. Finance manager has to see things as a part of a whole and make financial decisions within the framework of overall corporate objectives and policies.

Let us discuss in greater detail the reasons why knowledge of the financial implications of their decisions is important for the non-finance managers. One common factor among all managers is that they use resources and since resources are obtained in exchange for money, they are in effect making the investment decision and in the process of ensuring that the investment is effectively utilized they are also performing the control function.

Marketing-Finance Interface

There are many decisions, which the Marketing Manager takes which have a significant location, etc. In all these matters assessment of financial implications is inescapable impact on the profitability of the firm. For example, he should have a clear understanding of the impact the credit extended to the customers is going to have on the profits of the company. Otherwise in his eagerness to meet the sales targets he is liable to extend liberal terms of credit, which is likely to put the profit plans out of gear. Similarly, he should weigh the benefits of keeping a large inventory of finished goods in anticipation of sales against the costs of maintaining that inventory.



Citation: <https://www.liderlikokulu.com.tr/course/raporlama-teknikleri-egitimi/>

Other key decisions of the Marketing Manager, which have financial implications, are:

- Pricing
- Product promotion and advertisement
- Choice of product mix
- Distribution policy.

Production-Finance Interface

Production managers

organize and control the production process in a factory. They ensure that products are made to the right specifications and are ready on time and within budget.

As we all know in any manufacturing firm, the Production Manager controls a major part of the investment in the form of equipment, materials and men. He should so organize his department that the equipment under his control are used most productively, the inventory of work-in-process or unfinished goods and stores and spares is optimized and the idle time and work stoppages are minimized. If the **production manager** can achieve this, he would be holding the cost of the output under control and thereby help in maximizing profits. He has to appreciate the fact that whereas the price at which the output can be sold is largely determined by factors external to the firm like competition, government regulations, etc. the cost of production is more amenable to his control. Similarly, he would have to make decisions regarding make or buy, buy or lease etc. for which he has to evaluate the financial implications before arriving at a decision.



Citation: <https://www.socialtalent.com/blog/recruitment/top-10-in-demand-banking-finance-job-titles-2015>

Top Management-Finance Interface

The top management, which is interested in ensuring that the firm's long-term goals are met, finds it convenient to use the financial statements as a means for keeping itself informed of the overall effectiveness of the organization. We have so far briefly reviewed the interface of finance with the non-finance functional disciplines like production, marketing etc. Besides these, the finance function also has a strong linkage with the functions of the top management. Strategic planning and management control are two important functions of the top management. Finance function provides the basic inputs needed for undertaking these activities.

Economics – Finance Interface

The field of finance is closely related to economics. Financial managers must understand the economic framework and be alert to the consequences of varying levels of economic activity and changes in economic policy. They must also be able to use economic theories as guidelines for efficient business operation. The primary economic principle used in managerial finance is marginal analysis, the principle that financial decisions should be made and actions taken only when the added benefits exceed the added costs. Nearly all-financial decisions ultimately come down to an assessment of their marginal benefits and marginal costs.



Citation: <https://news.efinancialcareers.com/ru-en/310738/smu-master-of-science-in-accounting-data-and-analytics-sc>

Accounting – Finance Interface

The firm's finance (treasurer) and accounting (controller) activities are typically within the control of the financial vice president (CFO). These functions are closely related and generally overlap; indeed, managerial finance and accounting are often not easily distinguishable. In small firms the controller often carries out the finance function, and in large firms many accountants are closely involved in various finance activities. However, there are two basic differences between finance and accounting; one relates to the emphasis on cash flows and the other to decision making.

Roles and Responsibilities of Finance Manager

Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization. Financial managers work in many places, including banks and insurance companies.



Citation: <http://ifeel.edu.in/blog/roles-responsibilities-finance-manager/>

Financial managers increasingly assist executives in making decisions that affect the organization, a task for which they need analytical ability and excellent communication skills. A sole proprietor might be able to handle the financial end of his shop all by himself but as a business gets bigger, it typically need a manager to be in charge of

money matters. Financial managers help decision-makers with their financial decisions so that their businesses continue to turn a profit and minimize costs.

What does a Financial Manager do?

The role of the financial manager, particularly in business, is changing in response to technological advances that have significantly reduced the amount of time it takes to produce financial reports. Financial managers' main responsibility used to be monitoring a company's finances, but they now do more data analysis and advice senior managers on ideas to maximize profits. They often work on teams, acting as business advisors to top executives.



Citation: <https://www.sokanu.com/careers/financial-manager/>

Financial managers typically do the following:

- Prepare financial statements, business activity reports, and forecasts
- Monitor financial details to ensure that legal requirements are met
- Supervise employees who do financial reporting and budgeting
- Review company financial reports and seek ways to reduce costs
- Analyze market trends to find opportunities for expansion or for acquiring other companies
- Help management make financial decisions

Budgeting is the process of creating a plan to spend your money. This spending plan is called a budget.

Financial managers also do tasks that are specific to their organization or industry. For example, government financial managers must be experts on government appropriations and **budgeting** processes, and healthcare financial managers must know about issues in healthcare finance. Moreover, financial managers must be aware of special tax laws and regulations that affect their industry.



Citation: <https://www.sabusinessindex.co.za/when-it-pays-to-think-like-a-finance-manager/>

The following are examples of types of financial managers:

- **Controllers** direct the preparation of financial reports that summarize and forecast the organization's financial position, such as income statements, balance sheets, and analyses of future earnings or expenses. Controllers also are in charge of preparing special reports required by governmental agencies that regulate businesses. Often, controllers oversee the accounting, audit, and budget departments.
- **Treasurers** and finance officers direct their organization's budgets to meet its financial goals. They oversee the investment of funds. They carry out strategies to raise capital (such as issuing stocks or bonds) to support the firm's

expansion. They also develop financial plans for mergers (two companies joining together) and acquisitions (one company buying another).

- **Credit managers** oversee the firm's credit business. They set credit-rating criteria, determine credit ceilings, and monitor the collections of past-due accounts.
- **Cash managers** monitor and control the flow of cash that comes in and goes out of the company to meet the company's business and investment needs. For example, they must project cash flow (amounts coming in and going out) to determine whether the company will *not* have enough cash (and will need a loan), or *will* have more cash than needed (and can invest some of its money).
- **Risk managers** control financial risk by using hedging and other strategies to limit or offset the probability of a financial loss or a company's exposure to financial uncertainty. Among the risks they try to limit are those due to currency or commodity price changes.
- **Insurance managers** decide how best to limit a company's losses by obtaining insurance against risks such as the need to make disability payments for an employee who gets hurt on the job, and any costs imposed by a lawsuit against the company.

CASE STUDY

CISCO: TRANSFORMATION OF ENTIRE SUPPLY CHAIN INTO AN EXTENDED ENTERPRISE SYSTEM

Cisco Systems of San Jose, California, is a company that develops networking devices such as switches, routers, network management software, and dial-up access servers. By the mid 1990s, realizing that growth depended on our ability to scale manufacturing, distribution and other supply chain processes quickly, Cisco managers decided to reinvent its business model and turn itself into a Web-enabled company. An 'ecosystem' which in fact transformed the entire supply chain into an extended enterprise system based on internet technology was created in order to links customers, prospects, partners, suppliers and employees in a multi-party, multi-location electronic network.



E-Business can be defined as all electronically mediated information exchanges, both within an organization and with external stakeholders supporting the range of business processes. It links internal employees with external customers, suppliers through technology like Internet, intranets, and extranets. E-commerce, conceived as a subset of e-business, can be categorized as buy-side e-commerce which are equivalent to upstream supply chain and sell-side e-commerce which equate to downstream supply chain. A 'supply chain' is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. An effective supply chain management can improve efficiency throughout e-business.

Cisco estimated that in financial year 2000, a total of US\$695 million would be saved by adopting this interconnected supply chain. These solid figures prove the potential benefits e-business can bring into Cisco are enormous. Broadly speaking, it is argued that there are at least two primary ways in which the application of e-business technologies can improve the efficiency of a supply chain. First is known as disintermediation, which organization eliminates the communication and coordination costs associated by eliminating links in the supply chain. The second way is by lowering the cost of communication and coordination among the various members of supply chain. In this case, Cisco adopted the second way by using information technology to communicate, which enable faster, more accurate, and lower cost information exchanges with its trading partners.

Upstream Issues (Buy-Side)

Upstream supply chain is the transactions between an organization and its suppliers and intermediaries. In this particular case, Cisco outsourced most of the manufacturing and logistics activities as James Crowther, customer business solutions manager said, in order to increase production capacity enough to meet demand. activity subcontracting a process, product design or manufacturing, to a third-party company. Cisco's suppliers not only make all of the components and perform 90 % of the sub-assembly work, but they also undertake 55% of the final. By outsourcing production of 70 % of its products, Cisco has quadrupled output without building new plants. Furthermore, through Cisco Manufacturing On-line, Cisco has created an extranet application that increases productivity and efficiency in the manufacturing, supply, and logistics functions among globally networked partners. The accomplishment not only increased the outputs but left Cisco free to concentrate on their real strengths: new product development, looking after customer needs and brand management.

Cisco Manufacturing Connection Online (MCO)

Since relationships with suppliers are especially critical in the economy, Cisco has created an Extract application that leverages productivity and efficiency in the supply function through MCO, which can be viewed as supply chain portal that seamlessly connects Cisco to its contract manufacturers, distributors, and logistics partners. The core of MCO dealing with their supplier is centralizing the process control and as a consequence decentralizing actual execution. There is a three-part strategy to scale its upstream supply chain in a cost-effective manner in MCO:

- **Auto test.** To resolve the testing problem, Cisco has installed automated test cells on all Cisco-dedicated supplier production lines using Cisco-developed technology to automatically configure test procedures for each specific customer

order so that the quality could be controlled and the cost of deploying a test engineer could be saved. However, although Cisco outsourced much of the physical test, the company retained the intelligence behind the testing.

- **Direct Fulfillment.** Cisco launched a global direct fulfillment model under which most of the company's manufacturing partners can now ship directly to customers. This will reduced the distribution cost between Cisco and supply chain partners.
- **Dynamic replenishment.** By direct linking to the suppliers, Cisco could gain real-time access to supplier information so that delivery lead-times, errors and inventory will be cut and the productivity of its employees involved in purchasing will be improved. The purchasing teams can focus on more strategic activities such as partnership and business development.

The implication of increasing outsourcing of core activities is that companies will move towards the virtual organization which leads to a more responsive and flexible company with great market orientation. As Pete Rukavina, Cisco's director of global supply chain management, addressed: "For every Cisco manufacturing employee there are six virtual manufacturing employees who use Cisco processes, are measured against Cisco metrics, and are located around the world."

Traditionally, a new product introduction had been a process in which engineering, procurement, manufacturing and marketing were performed sequentially in time-consuming steps. Cisco has networked these functions in order to extract real benefits with its partners. A perfect example could be car industry where car plants traditionally would be located nearby the raw material factory so that inputs directly from factory will be produced as a result of cars. However, there has been a trend to outsourcing more and more components such as lights, trim and even engine to third party. Just-in-time of Toyota was created base on the outsourcing strategy.

Downstream Issues (Sell-Side)

Downstream supply chain is the transactions between an organization and its customers and intermediaries. There were some potential issues which Cisco has faced in the process of selling products in the past:

- One-third of all faxed orders. Due to the nature of fax, orders will inevitable contain errors sometimes so that it will delay the processing. In addition, 15 % of the number of orders required reworking.
- Sundry expenses. Delivering software purchases to its customers on CD by a freight forwarder will generate a cost of delivering.
- New product introduction. Time-to-market of new products is counted in months or years.

Cisco Connection Online is introduced in order to deal with these issues.

Cisco Connection Online (CCO)

Customer Connection Online is essentially a web portal to information stored in Cisco's enterprise resource planning [ERP] databases, legacy systems and client/server systems, and acts as a comprehensive resource for our customers, resellers, suppliers and partners. In fact, it used the Internet as the prime customer contact channel so that customer information and decision-making feeds directly into the supply chain. Technology is vital to supply chain management since managing relationships with customers, suppliers and intermediaries is based on the flow of information and the transactions between the parties. Customers rely on CCO to answer questions, diagnose network problems, and provide solutions and expert assistance worldwide based on four components of CCO:

- **Market-place.** It is a virtual shopping center in which customers can purchase items online. It also offers users tools for configure, price, route and submit orders. This function can be used to solved the first problem mentioned above which is lots of errors contained in fax. With the introduction of Market-place, customers rarely make purchasing mistakes by ordering online. Only 2 percentages are required rework.
- **Status Agent.** It gives Cisco's sales force, as well as direct customers and sales partners, immediate access to critical information about the status of customers' order. The sales force can not only prevent possible billing or shipment problems by accessing order information but also save time such as tracking order status in order to devote to building relationships with customers and seeking new business opportunities.
- **Customer Service.** It provides nontechnical assistance on a self-help basis for customer requests. No one is better motivated to help the customer than the customers themselves. The self-service model which Cisco is committed is argued to know as raising the customer satisfactory overall.
- **Technical Assistance and Software Library.** It enables customers and business partners to get online answers to technical questions and download software updates and utilities for Cisco hardware, which saved over US\$500,000 per year in freight forwarding charges.

Specifically, the Web gives Cisco both a vehicle through which customers can find out about products and buy them and an automated support system that can reach a larger audience. Modern marketing philosophy requires that organization be committed to customer orientation. It is important that introduce a new product earlier than competitors because customers intend to accept the first new item. In the response of the third problem identified above, Cisco automated the process for

gathering product data information, thereby reducing the amount of time required to less than 15 minutes. It is believed that this type of positive impact on time-to-market generated an extra US\$388 million in income during 2000.

Furthermore, it is recognized that building strong customer relationships is the key driver to sustainable profitability. CRM is therefore considered to be the most important element within e-business context. Essentially, CRM is an approach to building and sustaining long-term business with customers. It is about customer acquisition, customer retention and customer extension. It is recommended that the first step is to retain existing customer because the costs of acquiring new customers are so high that repeat business is essential. The next step is to acquire new customers on a profitable basis. It is argued that by giving customers tools for self-configuration and turning its back office into the customer's front office could be one of the best ways Cisco do.

Cisco Employee Connection (CEC)

Cisco's ecosystem looks inward as well as outward. Whereas CCO addresses the needs of Cisco customers, partners, suppliers, and employees, Cisco Employee Connection (CEC) is limited to information and services that address the unique needs of individual Cisco employees. In order to improve employee satisfaction and scale its workforce without incurring unnecessary overhead, Cisco re-engineered all its internal and external employee services. Applying the CEC, the following benefits can be provided.

- **Ubiquitous communications.** Every one of Cisco's employees around the world is connected through the Cisco network.
- **Streamlined business.** The interactive tools reduce the time that employees spend handling repetitive tasks and streamline routine business process.
- **Integrated business systems.** The CEC home page serves as the launching pad, all of information sharing the same navigational tools and a common user interface.

E-Supply Chain (Both Upstream and Downstream Issue)

In today's digital economy, flexibility, adaptation and responsiveness are critical to success. The Internet is the greatest ICT (information and communication technology) tool, and 'integration' is the key to efficiency and success. The company Cisco has opened up its internal information systems to suppliers and other supply chain partners, giving the employees the same access rights to information as Cisco employees, and as a result enabling the Cisco ecosystem to act as a distributed knowledge management network. This networked ecosystem that leverages the collective capabilities of all supply chain

partners integrates all supply chain activities so that it achieved successful e-supply chain management. The reasons for that can be described as:

- Firstly the ecosystem standardizes and streamlines internal processes. The successful ERP system associated with CEC implementation forces Cisco to standardize, restructure and streamline the 'internal' functions. ERP systems enable organizational standardization, including the standardization among different locations belonging to the same enterprise.
- Secondly, the ecosystem streamlines external processes by seamless integration with suppliers and customers in terms of MCO and CCO. Materials and inventory position, product availability, price information, purchase orders and changes, vendor receipt/acceptance, Invoice payments and status reporting information are all visible among partners, including design-related information and sales forecasts
- Thirdly, Cisco has formed strategic alliances and long-term partnerships with suppliers and customers, basing on mutual trust and win-win strategy. Lack of mutual trust and unwillingness to share information among the partners appear to be the greatest obstacles in the way of e-collaboration.

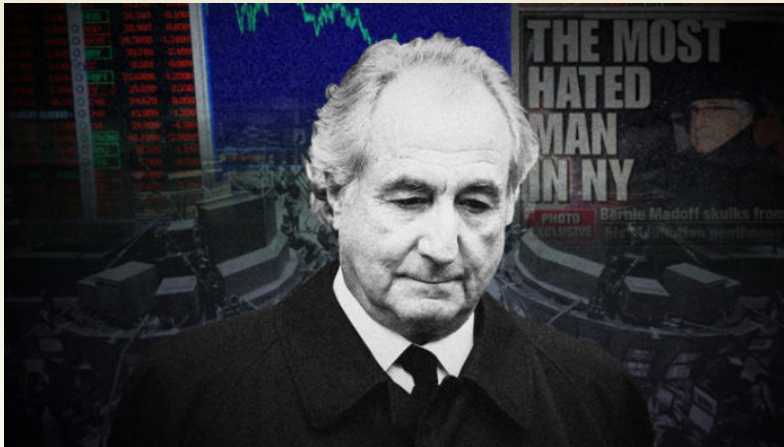
Comparing the Cisco ecosystem with SIMON (Shell Inventory Managed Order Network) which applied by Shell Chemicals, SIMON enables the transfer of responsibility for inventory management from customer to supplier. In other words, there is no need for customer to place an offer since vital inventory will be on customer. Customers pay only for what they consume. The SIMON is so successful in the downstream process that it was then applied to the upstream processes which are acquiring raw materials from supplier. Both Ecosystem and SIMON works in some extent due to the mutual trust and a belief that there are significant benefits to be realized on both side. The shared information between all parties in the supply chain is also critical to succeed. However, e-business does not always lead to organization success. For instance, Webvan, a top internet grocer based in the US, went bankrupt in 2001, because of poorly implemented e-business and over depending on technology and missed out the customers and inter-organization management.

To sum up, the ability to engage in collaborative planning and making joint decisions with both suppliers and customers are critical components of forming e-supply chain. Moreover, lack of integration between members of a supply chain results in operational inefficiencies that compromise the performance of the supply chain.

ETHICS

BUSINESS ETHICS: MADOFF INVESTMENT SCANDAL

Bernard “Bernie” Lawrence Madoff is an American investment adviser and stock broker who operated Madoff Investments in an unethically acceptable manner. He used the company as a front to commit a Ponzi scheme which fleeced investors of over \$65 billion. This has been regarded as the largest Ponzi scheme ever. Madoff grew up in a humble background and he established the Madoff Investments Company with support from the father in law. A few friends and family members also supported Madoff with the operations and growth of the business. Madoff used the returns from investment to support several charitable and political causes which his firm believed in.



However, in 1999, there was concern that the profits made by Madoff Investments surpassed the normal profits expected from a firm in such a venture. Markopolos, an expert in investments informed the exchange commission that it was not possible to achieve the level of profits which were achieved by Madoff Investments and it is possible that the firm engaged in fraud. Several investigations were undertaken during the next few years and in 2008, Madoff was unable to pay returns demanded by investors. It was then that he admitted that his investment scheme was a Ponzi scheme and he was later charged in court with fraud. Madoff was sentenced to 150 years and is currently serving his term.

Bernard L Madoff Investment Scandal

Madoff undertook financial fraud through misrepresenting the nature of his business to investors and encouraging them to invest in his company. Madoff founded a

company, Madoff Investments which dealt with investment of securities and shares. He began operating with a capital of approximately \$50,000 but in a decade, this sum had increased to hundreds of millions of dollars. Potential investors saw the company as successful and they invested billions of dollars in the business. However, Madoff did not deal entirely with financial investments but he carried out a Ponzi scheme, with the financial investment as the front. He used investments by new shareholders to pay returns to earlier shareholders without really making profit from the capital invested. It is important to understand how Ponzi schemes work in order to explain Madoff's strategies. Ponzi schemes are financed by capital from subsequent investors. For instance, if investor A invested in 2000 and investor B invested in 2001, Madoff used the capital invested by investor B to cover for the returns of investor A. Investor B's returns would subsequently be paid by capital invested by a new investor, C and son on.

In order to cover for the financial fraud, Madoff used the financial investments as a front for his fraud. He falsified return forms of investors and gave returns according to pre-determined rates in order to avoid raising suspicion. These returns, as explained, were financed by capital from subsequent investors. A computerized program was used to falsify the accounts and ensure that they balanced, to avoid suspicion from financial regulators. However, several people raised suspicion with the huge returns associated with Madoff Investments. It was seen as impossible to earn such high returns from trading in financial securities without engaging in fraud. In 1999, the first suspicions were raised although it took over ten years for the Ponzi scheme to be uncovered. This has been blamed by inefficiency by financial regulators and the US government. Effective investigations would have unearthed the scandal within the first five years of operation.

However, as is common with Ponzi schemes, it collapsed. These schemes collapse when returns required by before investors surpass the investments made by new investors. When this happened to Madoff Investments, he confided to his family that the investment firm was a just front for conducting fraud through the Ponzi scheme and it did not in fact exist. One of his sons reported this to the police. This led to his subsequent arrest and he was charged in court. He pleaded guilty and received a sentence of 150 years. His family, including his wife apologized to the public although their roles in the scandal were further investigated and they were cleared. Madoff is currently serving his term.

The government also took steps to restitute the victims of the Madoff Investment Scandal. Various assets, revenues and accounts which were linked to Madoff Investments were frozen and funds consolidated in efforts to pay back investors. Small investors received priority when being compensated although larger shareholders also received a share of revenue collected. Creditors were also compensated for the services which they had rendered to Madoff Investments. However, most investors were not fully

compensated for the losses incurred due to before money laundering strategies which Madoff had undertaken.

Ethical Issues Regarding Madoff Investments

Businesses are expected to undertake their affairs in ethically acceptable ways which conform to social values. Businesses are expected to conform to principles such as prudence, honesty, full disclosure, social and environmental responsibility among others. They are also expected to operate in way which is environmentally and socially friendly to the local community and society at large. Ethics usually dictates the way business undertake their operations and it is determined by organizational objectives, any professional ethics and government regulations when operating within the business environment. Firms usually follow business ethics to meet the needs of stakeholders while safeguarding the welfare of society.

There are various ethical issues which arose during the Madoff investment scandal and which are contrary to ethical requirements of businesses. One of these issues is fraud. Businesses are not expected to engage in fraud since it is not only against business interests, but it is also illegal under law. When Madoff and his staff engaged in fraud, they broke the ethical responsibility towards organizational stakeholders and in addition, they committed a crime. This led to his jail sentence of over 100 years. The second ethical issue which arises when analyzing the Madoff case is misrepresentation. Firms are required to follow the ethical responsibility of full disclosure to all organizational stakeholders. Misrepresentation is not only a breach of ethical requirements but it is also a crime. Madoff misrepresented the state of his firm's finances and a false belief that it was making profits. This is what attracted the thousands of investors to Madoff Investments. Misrepresentation also enabled Madoff escape detection from financial regulators although there was suspicion on his illegal practices. The third ethical issue which arises from the case study is money laundering. This is the use of a legal source of revenue to hide illegal sources of revenue or revenues which have not been declared or taxed by the government. This is an unethical practice which is a crime and is punishable by many years in jail. Madoff used his investment firm as a front to hide the revenues which were received through the Ponzi scheme. The investment firm was used to portray the business activities are legal and to hide the true sources of revenue. Money laundering is a crime which Madoff was charged with and it contributed to his long jail sentence.

FOCUS ON**ROLE OF FINANCIAL MANAGEMENT IN HEALTH CARE**

Managing the finances of any health care business nowadays is like driving a car with foggy windows. The industry has been changing in big ways since long before the Affordable Care Act took effect. Medicare's coding system for billing and the advent of electronic medical records are examples of these changes. Financial management in health care requires exceptional skill.

What Financial Management Means

In any industry, financial management involves handling routine financial operations, such as negotiating contracts, making cash available for expenses such as payroll, and maintaining a cash cushion for unexpected costs. At the company's executive level, financial management means providing the other members of the leadership team with information to make strategic plans to prepare for the future. For example, health care providers, such as large physician practices and hospitals, may decide to offer expanded tests or treatments by buying new medical equipment. Helping to make the decision and finding the best way to pay for it are both part of financial management.

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Meeting Different Financial Goals

Business strategies and financial management are intertwined. In 2013, hospitals were buying up neighboring physician practices. Doctors who sell their practices become employees of the hospital, and the hospital becomes a regional hospital system. That way, the hospital builds a larger and steadier payment stream: It gets money from the entire spectrum of medical care, from tests to surgery to rehabilitative services. Acquiring a practice brings in new revenues right away, so the revenue stream helps pay for the purchase, and the regional hospital system, which is much larger than the hospital alone, has more bargaining power with health-insurance companies.

Managing Treatment Costs

To a health insurer, cost-effective medicine is crucial. Insurers create lists of drugs they are willing to pay for and treatment guidelines for their contracting physicians. Insurers then use software to track individual doctors' "utilization" -- their choices of tests and treatments -- to make sure they follow the guidelines. Cost effectiveness is

so important to an insurer's bottom line that developing guidelines rises to the level of financial management. The task requires significant medical know-how. The insurer wants treatments to work to avoid higher costs down the road. Doctors need to be sure that the treatments are medically sound. Otherwise, they put themselves at risk for malpractice lawsuits.

Preventing Expensive Medical Conditions

A health maintenance organization, which may have the same patients for many years, shares the goals of a public health agency: preventing expensive illnesses by keeping patients healthy. For example, HMOs want to find the best and most cost-effective screening tests for heart disease and cancer. For that, medical research is indispensable. Indeed, the nation's biggest managed-care organization, Kaiser Permanente, funds some of the nation's most influential medical research. Any health care entity that has an affiliated research group -- and many do -- adds its funding to the tasks of financial management.

Changes Bring Fresh Challenges

Financial management is an art and a science in any industry, but health care is particularly challenging because the industry changes so fast. With the Affordable Care Act, for instance, insurers have had to recalculate their plans and their premium structures. More changes are inevitable. Providers and insurers will need exceptionally skilled financial management for a good while to come.

SUMMARY

- Financial management is crucial for the success of any organization, be it private, government or non-government. Successful enterprises watch their finances very closely and therefore take the right decisions at the right time, ultimately leading to success.
- Financial management focuses on ratios, equity and debt. Financial managers are the people who will do research and based on the research, decide what sort of capital to obtain in order to fund the company's assets as well as maximizing the value of the firm for all the stakeholders.
- Finance is the life-blood of economic enterprises. It is the pivot on which the whole business process functions. Finance provides security, stability and flexibility to both profit and non-profit organizations in order to develop goods and services to meet the demands.
- The rate of conversion of original capital investment decides and determines the profitability of a business. The profitability could be augmented if the rate of flow of funds could be accelerated while a slow rate may lead to low profits or losses.
- Finance describes the act of providing money, capital or other financial resources to assist in facilitating a loan or a sale. This term is commonly used within the financial industry, which includes areas such as banking and accounting.
- Individuals working in financial management may also focus on planning and security analysis, but tend to also work more specifically with an individual company or group and often tend to focus more on overseeing the group's working capital.
- Specific laws pertaining to finance vary among countries and may even vary within smaller jurisdictions. Most governments, however, strictly monitor financial transactions to protect individuals, businesses and institutions from incidents of fraud or other potential hazards.

KNOWLEDGE CHECK

1. **The only feasible purpose of financial management is**
 - a. Wealth Maximization
 - b. Sales Maximization
 - c. Profit Maximization
 - d. Assets maximization
2. **Financial management process deals with**
 - a. Investments
 - b. Financing decisions
 - c. Both a and b
 - d. None of the above
3. **Agency cost consists of**
 - a. Binding
 - b. Monitoring
 - c. Opportunity and structure cost
 - d. All of the above
4. **Finance Function comprises**
 - a. Safe custody of funds only
 - b. Expenditure of funds only
 - c. Procurement of finance only
 - d. Procurement & effective use of funds
5. **The objective of wealth maximization takes into account**
 - a. Amount of returns expected
 - b. Timing of anticipated returns
 - c. Risk associated with uncertainty of returns
 - d. All of the above
6. **Financial management mainly focuses on**
 - a. Efficient management of every business
 - b. Brand dimension
 - c. Arrangement of funds
 - d. All elements of acquiring and using means of financial resources for financial activities

7. **Financial corporations which serve individual savers and commercial mortgage borrowers are classified as**
 - a. savings associations
 - b. loans associations
 - c. preferred and common associations
 - d. savings and loans associations
8. **A regulatory body which licenses brokers and oversees traders is classified as**
 - a. international firm of auction system
 - b. international association of network dealers
 - c. national firm of equity dealers
 - d. national association of securities dealers
9. **Companies take savings as premium, invest in bonds and make payments to beneficiaries are classified as**
 - a. debit unions
 - b. life insurance companies
 - c. credit unions
 - d. auto purchases
10. **Federal government tax revenues if it exceeds government spending then it is classified as**
 - a. budget surplus
 - b. budget deficit
 - c. federal reserve
 - d. federal budget

REVIEW QUESTIONS

1. What is finance? Define business finance.
2. Discuss the objectives of financial management.
3. Critically evaluate various approaches to the financial management.
4. Explain the scope of financial management.
5. Discuss the role of financial manager.
6. Explain the importance of financial management.

CRITICAL QUESTION

1. Explain the aims of finance function. Also describe the interface between finance and other functions.

Check Your Result

1. (a)	2. (b)	3. (d)	4. (d)	5. (d)
6. (d)	7. (d)	8. (d)	9. (b)	10 (a)

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2

FINANCIAL PLANNING

"A good financial plan is a road map that shows us exactly how the choices we make today will affect our future."

—Alexa Von Tobel

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Explain financial planning - definition, objectives and importance
- Discuss about financial planning process
- Understand the estimation of financial requirements of a firm



KEY IDEAS

1. Financial Planning is a vital part of Financial Management. You know that planning is a systematic way of deciding about and doing things in a purposeful manner. When this approach is applied exclusively for financial matter, it is termed as financial planning.
2. In connection with any business enterprise, it refers to the process of estimating a firm's financial requirements and determining pattern of financing. It includes determine the objectives, policies, procedures and programs to deal with financial activities.
3. To ensure adequate liquidity so that there are no defaults in payments and all contingencies (any unforeseen expenditure) are met without difficulty.
4. To ensure optimal use of funds so that the business is neither starved of funds nor has unnecessary surplus funds at any point of time.
5. Start-up costs include common categories such as inventory, machinery and equipment, office space, security deposits, license, fees, permits, professional fees, advertising fees, working capital and unanticipated expenses.

INTRODUCTION

Financial planning is a process of setting objectives, assessing assets and resources, estimating future financial needs, and making plans to achieve monetary goals. Many elements may be involved in this process, including investing, asset allocation, and risk management. Tax, retirement, and estate



Citation: <https://www.dnaindia.com/personal-finance/report-financial-planning-start-early-invest-in-equities-for-retirement-2666956>

planning are typically included as well. Financial planning plays a starring role in helping individuals get the most out of their money. Careful planning can help individuals and couples set priorities and work steadily towards long-term goals. It may also provide protection against the unexpected, by helping individuals prepare for things such as unexpected illness or loss of income.

Financial planning may mean different things to different people. For one person, it may mean planning investments to provide security during retirement. For another, it may mean planning savings and investments to provide money for a dependent's college education. It may even involve making career-related decisions or choosing the right insurance products. Many individuals choose to use the services of financial planners to help them reach their goals. A financial planner is a professional who provides advice and guidance for a wide spectrum of financial planning issues. Financial planners may or may not be certified and offer varied levels of experience.

FINANCIAL PLANNING - DEFINITION, OBJECTIVES AND IMPORTANCE

Financial Planning is a very general term and can be defined as Financial Management or Money Management. The Financial Services industry is huge and offers a plethora of investment options for an individual. However, choosing an investment product from the multiple options available in today's complicated financial world is an uphill task. There are more chances that you are sold a wrong product than a right one. This strengthens the very reason why you as an end user need to understand the world of personal finance. It is not easy to find an expert, who can help you integrate the concepts of investment management, financial goals planning, tax planning, retirement planning and so on. Make sure you understand your needs before choosing to invest in financial products.



<https://www.youtube.com/watch?v=xOhbfd0qANI>

“Financial Planning is the process of meeting your life goals through a systematic and disciplined arrangement of your personal finances.”



Citation: <https://www.financialmappers.com.au/test-your-financial-plan-before-its-too-late/>

Financial planner is a professional who prepares financial plans for people.

Financial planning is the task of determining how a business will afford to achieve its strategic goals and objectives. Usually, a company creates a Financial Plan imately after the vision and objectives have been set. The Financial Plan describes each of the activities, resources, equipment and materials that are needed to achieve these objectives, as well as the timeframes involved. Though a financial planner may make developing a financial plan easier, hiring one is not at all a necessity. There are many books, computer programs, and other resources available to help individuals with financial planning. Furthermore, there is a wealth of related information available on the Internet. The decision to hire a **financial planner** may depend on many things, including the financial worth of the individual, his or her goals for the future, and the amount of research the individual is willing to perform.

All too often, people delay planning for the future. They may feel such planning should take a back seat to staying financially afloat in the present. However, even those living from paycheck to paycheck can benefit from financial planning by creating a budget. A budget can be used to determine what

is actually spent each month and find ways to trim or even eliminate unnecessary or out-of-control expenditures. The right time to create a financial plan is right now. No matter what your income level or what your hopes for the future, you need a solid plan to achieve your goals. Drifting through life without carefully set goals and well-researched methods of achieving them is a recipe for disaster. To enable your money to offer you more of what you want out of life, start creating a financial plan today.

Definition of Financial Planning

Financial Planning is the process of estimating the capital required and determining its competition. It is the process of framing financial policies in relation to procurement, investment and administration of funds of an enterprise. Financial planning is the process through which an individual moves towards meeting personal and financial goals through the development and implementation of a comprehensive financial plan. In general, financial planning is series of steps taken by an individual for planning his future. It involves planning and directing individual's resources to grow and accumulate assets so that financial goals of an individual can be achieved within pre decided time period. Financial planning is a complex process that needs knowledge and time.



Citation: <https://www.getsmarteraboutmoney.ca/plan-manage/planning-basics/financial-planning/>

Financial planning is specific to the individual, as no two individuals are identical nor their finances. Every individual has varied sets of background, income, expenses, risk taking ability, future outlook, assets, needs, financial situation, knowledge, responsibilities, etc. Financial planning is not a static concept but is a dynamic ongoing process. Financial planning process is complex as it involves various situations, asset classes, dynamic external environment etc. Financial planning takes time as it is comprehensive planning which involves integration of personal and financial goals. It includes risk management (insurance), income tax management, retirement planning, estate planning, child education planning, and investment management.

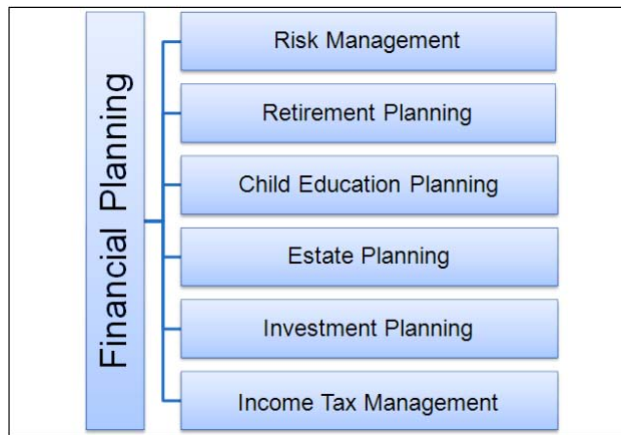


Figure 1: Elements of Financial Planning.

Citation: http://shodhganga.inflibnet.ac.in/bitstream/10603/82721/12/12_chapter2.pdf

Figure 1 enlists important elements of financial planning for an individual. These are the broad elements which constitutes financial plan for any individual. All the elements need attention while planning as per the priorities of an individual. As financial planning is complex, tedious, and time consuming process it needs advice from experts like financial planners. Financial planner has detailed knowledge and understanding of all the facets of financial planning. They help an individual to achieve financial goal through planning and its implementation.

Objectives of Financial Planning

Financial planning implies deciding what to spend, how to spend and how much to spend according to the funds that are available. Financial planning needs to be done by everyone from individuals to large multi-national corporations. The larger the

quantum of funds that one is dealing with, the more the effort required to plan its usage appropriately.



Citation: <https://www.invensis.net/blog/finance-and-accounting/importance-of-financial-planning-for-organizations/>

The main objectives of financial planning differ for each plan and individual planner, as a financial plan is created based on personal goals and financial resources. The objectives also differ for companies compared to personalized financial plans for the home. In other words, the main objectives of short-term financial planning are those that are important for the creator or business in question. Financial Planning has got many objectives to look forward to:

- **Determining capital requirements-** This will depend upon factors like cost of current and fixed assets, promotional expenses and long- range planning. Capital requirements have to be looked with both aspects: short- term and long- term requirements.
- **Determining capital structure-** The capital structure is the composition of capital, i.e., the relative kind and proportion of capital required in the business. This includes decisions of debt- equity ratio- both short-term and long- term.
- **Framing financial policies** with regards to **cash control**, lending, borrowings, etc.
- A finance manager ensures that the scarce financial resources are maximally utilized in the best possible manner at least cost in order to get maximum returns on investment.

Cash Control is an important part of business as it is required for proper cash management, monitoring and recording cash flow and analyzing cash balance.

Essentials of a Sound Financial Plan

While preparing a financial plan for any business unit, the following aspects should be kept in view so as to ensure the success of such exercise in meeting the organizational objectives.

- The plan must be simple. Now-a-days you have a large variety of securities that can be issued to raise capital from the market. But it is considered better to confine to equity shares and simple fixed interest debentures.
- It must take a long-term view. While estimating the capital needs of a firm and raising the required funds, a long-term view is necessary. It ensures that the plan fully provides for meeting the capital requirement on long-term basis and takes care of the changes in capital requirement from year to year.
- It must be flexible. While the financial plan is based on long-term view, one may not be able to properly visualize the possible developments in future. Not only that, the firm may also change its plans of expansion for various reasons. Hence, it is very necessary that the financial plan is capable of being adjusted and revised without any difficulty and delay so as to meet the requirements of the changed circumstances.
- It must ensure optimal use of funds. The plan should provide for raising reasonable amount of funds. As stated earlier, the business should neither be starved of funds nor have surplus funds. It must be strictly need based and every rupee raised should be effectively utilized. There should be no idle funds.
- The cost of funds raised should be fully taken into account and kept at the lowest possible level. It must be ensured that the cost of funds raised is reasonable. The plan should provide for a financial mix (combination of debt and equity) that is most economical in terms of cost of capital, otherwise it will adversely affect the return on shareholders' funds.

- Adequate liquidity must be ensured. Liquidity refers to the ability of a firm to make available the necessary amount of cash as and when required. It has to be ensured in order to avoid any embarrassment to the management and the loss of goodwill among the investors. In other words, the investment of funds should be so planned that some of these can be converted into cash to meet all possible eventualities.

Considerations in Formulating Financial Plan

A financial plan should be carefully determined. It has long-term impact on the working of the enterprise.

The following variables should be kept in mind while selecting a financial plan:

- **Nature of the Industry:** The needs for funds are different for various industries. The asset structure, element of seasonality, stability of earnings is not common factors for all industries. These variables will influence determining the size and structure of financial requirements.
- **Standing of the Concern:** The standing of a concern will influence a decision about financial plan. The goodwill of the concern, credit rating in the market, past performance, attitude of the management is some of the factors which will be considered in formulating a financial plan.
- **Future Plans:** The future plan of a concern should be considered while formulating a financial plan. The plans for expansion and diversification in near future will require a flexible financial plan. The sources of funds should be such which will facilitate required funds without any difficulty.
- **Availability of Sources:** There are a number of sources from which funds can be raised. The pros and cons of all available sources should be properly discussed for taking a final decision on the sources. The sources should be able to provide sufficient and regular funds to meet needs at various periods. A financial plan should be selected by keeping in view the reliability of various sources.
- **General Economic Conditions:** The prevailing economic conditions at the national level and international level will influence a decision about financial plan. These conditions should be considered before taking any decision about sources of funds. A favorable economic environment will help in raising funds without any difficulty. On the other hand, uncertain economic conditions may make it difficult for even a good concern to raise sufficient funds.
- **Government Control:** The government policies regarding issue of shares and debentures, payment of dividend and interest rate, entering into foreign collaborations, etc. will influence a financial plan. The legislative restrictions on using certain sources, limiting dividend and interest rates, etc.; will make it

difficult to raise funds. So, government controls should be properly considered while selecting a financial plan.

Importance and Value of Financial Planning

Financial Planning is process of framing objectives, policies, procedures, programs and budgets regarding the financial activities of a concern. This ensures effective and adequate financial and investment policies. Financial planning adds tremendous value to the company. In fact, without it no enterprise can function efficiently.



Citation: <https://yourbusiness.azcentral.com/advantages-financial-planning-11013.html>

Below are some of the reasons why.

- The company has to plan to make sure they accumulate just the right amount of funds. Too little money is bad as well as too much of it. Planning helps in gathering, storing and using just the right amount of funds.
- How are these funds going to be raised? Is the company going to issue shares, will they issue debt, or will they take loans from banks? Once this decision is made, the company has to decide to whom they want to issue the shares and the debt, and which banks they want to approach for loans. Since most

companies use a mix of all these avenues to raise funds, planning becomes extensive and complicated.

- At any given point in time, a company might have two, three or maybe more investment proposals. They need to decide which among them is the most affordable, the most profitable and has the highest chance of success. Then they can invest in those proposals.
- Every enterprise needs a sizeable quantum of funds for day-to-day operations, and the larger the enterprise, the more the money needed. Finance has to continuously flow into the business so that operations proceed unhindered, and at no point of time is there a shortage of raw materials or a stoppage in production.
- Financial planning is also the base for financial control. Unless the finance teams know how much money has been allocated and to which activity, they cannot know if they are going over-budget or are under-budget. If remedial action needs to be taken, they will have a base for taking corrective measures.
- Every business has to face unforeseen expenses, crisis situations and events over which they have no control. Emergency funds are needed to tide over these tough phases. One of the roles of financial planning is to make sure that there are enough reserves for such occasions, and that these reserves are continuously renewed as and when they get depleted.
- A company has to constantly decide which department gets how much money. Every department like production, sales, marketing etc., would have their own budget of how much they need. But should they be given the funds they are asking for? There will be times when the marketing department might need more and there will be times when the HR department might need more. Who gets how much funds and at what point in time is a constant activity for the financial planners.
- Financial planning also ensures consistency of goals, aligning the growth objectives of the enterprise with its financial requirements. For instance, aiming for

Profit margin is a profitability ratio calculated as net income divided by revenue, or net profits divided by sales.

a higher sales target may require eating into the **profit margin** of products and services by having to reduce prices.

- Financial planning also supports the strategic growth of the organization, by taking into account risks, capital budgeting estimates, and opportunities in new markets.

Financial planning is usually executed by following a process with the following steps:

- Sales forecasting
- Projection of the assets required to support sales
- Projection of funds that are generated within the organization
- Projection of external funds that will be required
- Identifying the means to raise the funds
- Assessing the effect of plans on financial ratios and stock price

Financial planning is a year-round activity that requires the support of accurate financial reporting and analysis. Not only does it need to be done constantly, but the outcomes of those plans also need to be monitored. In case they are not working out, new plans need to be drawn up or the old ones need to be modified. The larger the enterprise, the larger the size of the team working on financial planning and the greater the skill needed. Financial planning starts before the commencement of a venture and carries on throughout its lifetime. It is a vital activity for all businesses.

Benefits of Financial Planning

The benefits of financial planning are depicted below.

The financial planning is beneficial in terms of following points:

- Forecast of cash flows.
- Raising finances.
- Managing the flow of internal funds.
- Facilitate cost control.
- Facilitate pricing of product.
- Forecasting profits.
- Measuring required returns.
- Managing assets.
- Managing funds.
- Managing Cost.

- Miscellaneous importance.

Now let us discuss the importance of financial planning.

- **Forecast of cash flows:** Financial planning is necessary for the day to day operations of the business which results in discharging the obligations as and when they arise. This involves forecasting of cash inflows and cash outflows from the ordinary (regular transactions) and unexpected (irregular transactions such as bulk orders, discounts, etc.) business opportunities.
- **Raising finances:** Financial planning is important to plan for raising (mobilizing) finance from different sources so that the requisite amounts of finance are made available to compensate the requirement of business processes. These requirements may be in the nature of short-term (temporary overdraft, etc.), medium-term (acquisition of assets, etc.) and long-term (term loans, etc.).
- **Managing internal funds:** Financial planning is essential to keep a track of the realized surplus available in the treasury. This is required to make certain that they are properly utilized to meet the requirements of the business which will results in maintaining the liquidity position with a minimum amount of external borrowings.
- **Facilitate cost control:** Financial planning is beneficial to recognize the cost of production (material, labor, factory overhead, etc.), cost of administration (salary, legal expenses, office overhead, etc.) and cost of sales (advertisement, marketing and other promotional expenses). Cost control is analyzed by comparing the actual cost with standard (pre-determined) cost.
- **Facilitate pricing of product:** Financial planning is necessary for pricing of a product since pricing is the mode of determining, "How much a business will swap (in exchange) for its products?" Price is the only revenue generating tool of the business. Pricing has a direct relationship with demand and supply of a product. The desires of the user can be transformed into demand only if the consumer has the willingness and financial-capability to buy the product. Thus, pricing is very important for the success of the product.
- **Forecasting profits:** Financial planning is a model demonstrating comprehensive and forecasted analysis of profitability for the particular business in a specific market condition, with a pre-determined projected financial-plan. A forecasted profitability plan is required to estimate the course of action. A profit is the residual result of the agreed business operations.
- **Measuring required returns:** Financial planning is required to evaluate the required returns from the project. This may results in acceptance or rejection of a business proposal. It depends on whether the expected return from the proposed business is equal to or more than the required returns.
- **Managing assets:** Financial planning is required to manage the assets (owned and leased) of the business. Such assets shall be properly maintained to avoid



<https://www.youtube.com/watch?v=mXEWgVUZPn4>

Asset management refers to systematic approach to the governance and realization of value from the things that a group or entity is responsible for, over their whole life cycles.

any break-down (failure). It shall assist to determine the total investment in assets to carry out business operations properly and promptly.

- **Managing funds:** Financial planning is required to manage the funds of the investors and to conduct the activities of the business in the interest of the organization. Funds are the liquid assets of the company. Therefore, Funds should be managed (evaluated) with dual virtual (imaginary) vision, i.e. w.r.t. liquidity and profitability.
- **Managing cost:** Financial planning is also required to manage the cost of operations of the business. If the costs of operations are not measured carefully, then it may result in paying excessive money with a subsequent decline in profits.
- **Miscellaneous importance:** Financial planning may have a strategy to convert idle equipment into cash. It may also have a strategy to reduce the cost (for e.g. by not giving increments to employees, by not upgrading technology, etc.). It has a plan to hold the foreign remittance and wait for a favorable exchange rate for remitting of the same.

FINANCIAL PLANNING PROCESS

Financial planning is a comprehensive and ongoing process that can help you achieve your goals in life—both personal and financial. Financial planning consists of six fundamental components – Financial Management, Tax Planning, **Asset Management**, Risk Management, Retirement Planning and Estate Planning. With financial planning, none of the above components are ever dealt with entirely in isolation– it is the integration and interdependencies among these components, as well as the need to analyze and synthesize information presented to formulate strategies, which distinguish financial planning from other forms of financial advice or financial intermediation.



Citation: <http://www.yourcreditlife.com/articles/6-common-myths-about-financial-planning-busted>

Specific product recommendations or sales are not, in and of themselves, financial planning activities. While the process leading up to a specific product recommendation may well involve some financial planning activity, the actual product recommendation clearly falls outside the scope of financial planning.

The Six-Step Process to Financial Planning

Financial planning is a broad, comprehensive process. The Financial Planning Process consists of six steps that will assist you in assessing and planning your current and future financial requirements and developing a Financial Plan to meet your specific needs. The purpose of the Financial Plan is to create the perfect strategy that will meet your goals.



Citation: <https://www.financewalk.com/what-is-financial-planning/>

The six steps of financial planning are used by the best financial planners, specifically Certified Financial Planners (TM), when creating and implementing financial plans for their clients. However, these steps can and should be followed by every investor. Why not plan for yourself like the professionals do it? Whether you do it yourself or hire an advisor, this is a crucial section for your financial education and for future reference in financial planning.

EGADIM: The 6 Steps of Financial Planning

You can recall the six steps by memorizing the acronym EGADIM, the letters that begin the first word of each step:

- Establish the goal/relationship
- Gather data
- Analyze data
- Develop a plan
- Implement the plan
- Monitor the plan

The following steps make up the financial planning:

Step 1 in Financial Planning: Establish the Goal / Relationship

This is where the adviser introduces himself or herself and typically explains the financial planning process to a client or prospective client. The adviser may ask open-ended questions to uncover anything and everything from immediate financial goals to feelings about market risk to dreams about retiring in the Caribbean.

The purpose of establishing the goal or relationship is to form the foundation or purpose of planning itself--to begin the financial journey with the clarification of a financial destination. Too many people save and invest money with no specific goal in mind. Going a bit deeper, too many people have financial destinations but these goals are not their own; the goals are whatever the so-called conventional wisdom has taught. The purpose of money must follow the purpose of life, not the other way around.

Do-it-yourselfers can fulfill this step by simply getting to know themselves a bit better. Financial planners do this by asking open-ended questions, which are questions that cannot be answered by a simple yes or no. Here some examples of open-ended questions you can use in your own planning:

- What are your feelings about investing in the stock market? Why do you think you feel that way?
- What are some of your earliest memories and resulting experiences of financial planning (i.e., first savings account, first checking account, and first credit card)?
- What are your financial strengths? What are your financial weaknesses?
- How do you plan to save enough for retirement?

Now you have an idea of your financial goal--the guiding philosophy to **direct investment** objectives, cash management, insurance needs, and other financial instruments to help achieve your goals.

Direct investment

refers to an investment in a foreign business enterprise designed to acquire a controlling interest in this enterprise.

Step 2 in Financial Planning: Gather the Relevant Data

This step is where the information required to make recommendations for the appropriate strategies and financial products to reach your goals is gathered. For example, what is your time horizon? Do you want to accomplish this goal in five years, 10 years, 20 years, or 30 years? What is your risk tolerance? Are you willing to accept a high relative market risk to achieve your investment goals, or will a conservative portfolio be a better option for you? Also, how far along are you in your goals? Do you have any money saved yet? Do you have life insurance? Do you have a will? Do you have children? If so, what are their ages?

For example, if you are gathering data for retirement planning, you will need to know your annual income, savings rate, years until proposed retirement, age when you are eligible to receive Social Security or a pension, how much you have saved to date, how much you will save in the future, expected rate of return and more. Although you may already know this information, it is wise to have it all written down so that you can visualize all of the necessary data required to make investment decisions--to give yourself prudent "advice."

Step 3 in Financial Planning: Analyze the Data

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You have gathered the relevant data, now analyze it! Following the retirement planning example, the data you have gathered can help you arrive at some basic assumptions. Let us assume you have 30 years until retirement, you have already saved \$50,000, you expect an 8.00% return on your investments, and you can save \$250 per month going forward.

If you do not have a financial calculator, you can analyze the data with a financial calculator or you can go to one of many online calculators, such as Kiplinger's Retirement Savings Calculator, plug in the numbers and see if your retirement nest egg will be just right for you. Using a financial calculator these assumptions will arrive at approximately \$920,000 at the proposed retirement date of 30 years from now. Is this enough? Is your retirement goal achievable? Often, the initial assumptions are not quite enough to obtain the goal. This where you begin devising alternative solutions that are in the next step.

Step 4 in Financial Planning: Develop the Plan

Let us say you need \$1 million to reach your goal. The before assumptions (in Step 3: Analyze the Data) brought you just \$100,000 short at around \$900,000. If you can handle taking more market risk, you could increase your exposure to stocks in an aggressive portfolio of mutual funds and assume a 9.00% rate of return. Assuming all other assumptions remain the same, and by increasing your expected return by

1.00%, your 30-year time horizon, and savings rates would bring you to a nest egg worth nearly \$1.2 million.

But what if you want to keep the rate of return at 8.00% but increase your savings rate to \$300 per month? You can still come close to your goal with \$990,000. You can see why this step's keyword is "develop." Financial planning requires devising alternative solutions that are achievable for each individual. With so many different variables to consider, your plan needs to develop, to evolve with your needs but remain within your capabilities and risk tolerance.

Step 5 in Financial Planning: Implement the Plan

Now you simply put your plan to work! But as simple as this sounds, many people find that implementation is the most difficult step in financial planning. Although you have the plan developed, it takes discipline and desire to put it into action. Saving \$250 or \$300 per month may be difficult. You may begin to wonder what may happen if you fail. This is where inaction grows into procrastination. Successful investors will tell you that just getting started is the most important aspect of success.

You do not need to start out at a high level of savings or at an advanced level of investment strategy. You could learn how to invest with just one fund or you could start saving a few dollars per week to build up to your first investment. The point is to make your financial strategies achievable and to consider slowly moving up to desired savings rates rather than jumping into something that may be challenging if implemented too fast for your comfort level and budget.

Step 6 in Financial Planning: Monitor the Plan

It is called "financial planning" for a reason: Plans evolve and change just like life. Once the plan is created, it is essentially a piece of history. This is why the plan needs to be monitored and tweaked from time to time. Think of what can change in your life, such as marriage, the birth of children, career changes and more. These events all require new perspectives on life and finance. Now think of financial changes beyond your control, such as tax law changes, interest rates, inflation rates, stock market fluctuations, and economic recessions.

Crucial Factors Affecting Financial Planning

Financial planning is a tool used to help individuals and businesses develop, implement, monitor and adjust financial strategies according to the economic environment. Financial planning is now an independent industry, and many clients contract with external financial planners to prepare for the future and make sound investments. There are

a wide variety of factors that affect the way in which the financial planning industry operates.



Citation: <https://yourbusiness.azcentral.com/forces-impacting-financial-planning-industry-12880.html>

Enthusiasm is intense enjoyment, interest, or approval. The word was originally used to refer to a person possessed by a god, or someone who exhibited intense piety.

The single most important factor in a successful financial plan is your determination to take it seriously. Temper your **enthusiasm** for creating the perfect plan that will enable you to retire early and in high style. The more restrictive your spending plan, the more likely you will be to cheat occasionally, when you want to spend a little extra money on fun. Cheating on your financial plan is addictive, and soon you might abandon it altogether.

Realistic Financial Data

A solid and realistic base of data on your spending and saving habits, including expenses, income and large future expenditures is the next important factor. Analyze one to three years of your financial data to identify average monthly spending on standard costs such as housing, utilities, transportation, insurance, medical costs, debt payments, alimony, child support, food,

clothing, child care and entertainment. Add in recurring expenses such as subscriptions, memberships and professional development. Then look at your income tax returns, including refunds and payments. List all gross income, including bonuses, investment income, alimony, child support and gifts. Objectively create a budget that provides for all expenses plus leeway for cost increases. If there is no money left for savings, consider how to restrict your lifestyle in a comfortable way.

Goals and Expectations

The purpose of a financial plan is to make it possible to meet your goals and expectations. These may include buying a house, income property, vacation property, a new car every two years, providing a college education for your children or finishing your own. Include an estimate of your retirement needs, including medical costs. Whatever your goals, identify them in detail and know what they will cost.

Age-Appropriate Investments

Your age is a factor in making a financial plan. The younger you are, the more years you have to accumulate money to meet your goals. The U.S. Securities and Exchange Commission, in its online “Roadmap to Saving and Investing,” recommends that if you have five years until you expect to retire, you should keep your investments conservative. If you have 35 years until retirement, you can afford some risky investments because you will have time to replace any money unexpectedly lost. Conservative investments are high-quality bonds, blue-chip stocks, preferred stocks and high-quality dividend-paying stocks. Riskier investments include growth stocks, rental property and mutual funds that invest in specific industry or country securities. Diversification tends to moderate risk. High-risk investments include speculative stocks, junk bonds and new business ventures.

Risk Tolerance

The success of your financial plan will depend on how it is designed to handle risk. Common risks include economic risk, interest rate risk, securities market risk, credit risk relating to the investments in your portfolio and geopolitical risk. In fact, your own risk tolerance is affected by how you make your living. If you have a secure job with a dependable salary, you can afford to take a bit more risk. However, if you have a commission-based job and your income varies with the economy, keep your financial plan conservative. Suze Orman is one of many financial advisers who warn that the 21st century will be very different from the 20th century in terms of what employees can expect of employer-supplied benefits. Social Security and Medicare may provide less assistance than in before years. Your own risk tolerance is an important factor in your financial plan and should be approached realistically.

Professional Advice

Even if you are a savvy investor, seek professional tax, legal and investment-management advice. Just as it is difficult to write your own resume, it is also difficult to make your own financial plan. We tend to see things differently when they apply to us, so it is wise to get fresh eyes and objective professional skills involved in critiquing your plan.

Rules of Financial Planning

Financial planning is the process which provides you a framework for achieving your life goals in a systematic and planned way by avoiding shocks and surprises.

This section covers the following:

- Manage your Money
- Regulate your expenses wisely
- Maintain a personal balance sheet
- Dealing with surplus cash judiciously
- Create your personal investment Portfolio
- Planning for Retirement
- Manage your Debt wisely
- Get your risks covered
- Planning your Estate
- Planning your Taxes

Everyone has a unique situation, and there are no concrete financial numbers that define success, but there are some rules of thumb that can help you gauge your progress. While following these rules will not guarantee success, they will put you on the right track.

Manage your Money

Managing one's money need not be boring. It is not rocket science and you need not be from a financial background. You only need to show a bit of commitment. Deciding to save is the first step towards money management. Saving money can be the powerful tool towards greater financial independence. Imagine yourself borrowing from a friend for that urgent visit to the doctor! In case you do not have any friend, then you might have to swipe your credit card. And you know credit card is the most expensive form of debt. Repeat this a few more times and you end up in a debt trap even before you realize that.

You may have many financial goals in your mind. Like buying a vehicle or the latest smartphone or wealth accumulation. In all these situations, you need money. But where it will come from? You got to have savings! My friend saving money helps you avoid falling into debt traps. Not only this, but systematic saving on a regular basis can make you rich. You may achieve your financial goals in a timely manner. Now you might be wondering how to save? And even more important how much to save? As soon as you get your salary, start putting it under various heads. These heads can be expenses, EMIs, investments, and savings.

Ensure that you save 10% of your income every month. It can be that simple! But do not put it in a piggy bank. Idle money in a piggy bank does not grow. Even the saving bank account may not fetch higher returns. Instead, you may invest this amount in a liquid fund. The liquid fund is a type of debt mutual fund which invests money in fixed-income generating instruments like FDs, commercial paper, certificate of deposit etc. around 4%. Save every month and on a continued basis.

Regulate your expenses wisely

If you are living paycheck to paycheck and find yourself struggling for money even before the month ends, then chances are you are living way beyond your means. Maybe there are a lot of unplanned expenses! These might be leaving you with no money for the necessities. But there's a way out of this. Try making a budget. Unless you have a budget before your eyes, you will not be able to control your cash flows. A budget simply shows how much money you have coming in and how those funds are spent.

Start by categorizing your expenses into fixed and variable; urgent and non-urgent; necessities and luxury; avoidable and unavoidable. In this way, you will create a full inventory of expenses in front of you. The more you convert things from abstract to physical, the better you will get a hold of them. You can create a hierarchy of needs and decide which one's to address first. It is all about prioritizing. You need to accept that you have got limited resources and unlimited wants. But you have to manage your resources. The sooner you accept this fact, the better you can control your impulses towards avoidable expenditures.

You can even take the help of a plethora of apps like Mint, Level Money, Mvelopes and such kind available out there. After addressing all necessary expenses, you can allocate some money towards entertainment and leisure. To avoid overspending, you can create a list of groceries before visiting the departmental store. You can assign a no-spend day in the week. Be sure you commit to your **budget**. Consider it as a commitment instead of a burden. In this manner, you will be able to stick to the boundaries.

Budget is generally a list of all planned expenses and revenues. It is a plan for saving and spending for the near future.

Maintain a personal balance sheet

Having a personal balance sheet helps to know what you own and what you owe! It is a pretty powerful tool to take your finances to the next level. It is a statement wherein you can jot down your assets and liabilities. The difference between your assets and liabilities shows your personal Net Worth. Before getting started, pull together your bank statements and other proofs of the liabilities. Then list down your assets like the bank balance, all investments, home value, and value of other assets. Take a sum of all the assets to arrive at the total value of your assets. Afterward list down your liabilities like the car loan, home loan, credit card balances and remaining balances in other loans. The sum of all the liabilities will show the value of the money you owe.

When you subtract the value of liabilities from assets, you get your Net Worth. Ideally, it needs to be positive which means money you own is greater than the money you owe. Do not lose heart if it is negative. As you keep repaying your loans, your Net Worth is going to increase gradually. Yet another critical thing in asset management is what kind of assets you need to own. You must always try to own those assets which increase in value and involve the lesser cost of maintenance. In the end, it is all about how much can you really use. Simply accumulating things which you do not need leads to blocking money in unproductive stuff. It will be wise to be aware of what you actually use and what you can get rid of.

Dealing with surplus cash judiciously

How you deal with the surplus cash determines your future. When you do not have a plan, you are likely going to indulge in overspending. This money could have been used to make you financially self-sufficient. In the backdrop of inflation, everything is going to be costlier with each passing year. If you do not invest, your money will not grow to bridge the inflationary gap. You might have to work beyond your 70s to pay your bills. It is like not being able to retire forever. Investing can be a great way to channelize the extra cash and counter inflation. It can be used to grow wealth and divert it to goal accomplishment. The earlier you start investing

the better. Investing need not be a difficult and boring task. Perceive it as a bridge between where you are and where you want to be.

Start with identifying goals like buying a car or planning for retirement. Categorize those goals into short-term and long-term. Goals that can be achieved within 1 to 3 years are essentially short-term. Goals that need a horizon of 3-5 years are called medium-term goals. Goals that require more than 5 years to achieve our long-term goals. Then identify your risk appetite i.e. the degree to which you are comfortable with a fall in the value of your investments. If you can digest say a 20% fall in the value of investments, you are a high-risk seeker. Else, categorize yourself as a risk-averse person. After identifying your goals and risk appetite, you can conveniently select the investment haven. A risk-seeker may go for a diversified equity fund. Conversely, a risk-averse short-term investor may go to a liquid fund or a balanced fund. Mutual funds have come up as the most versatile investment haven. You can start Systematic Investment Plan (SIP) at a nominal sum of \$500. Under SIP, a fixed amount gets deducted from your saving and is invested in mutual fund scheme of your choice.

Create your personal investment Portfolio

Constructing your first investment portfolio is an achievement in itself. After all, it is your first step towards wealth accumulation. Building a portfolio involves distributing your investment amongst asset classes like equity, debt, and cash. It is known as asset allocation. Although equity is the best tax-efficient and inflation countering vehicle. However, putting all your money in equity is not a prudent move. You need to diversify the sums that are to be allocated in each asset class as per your investment goals. It is always wiser to be a long-term investor in order to accumulate greater corpus. Your investment horizon would ideally be around 10-15 years.

Once you have constructed a portfolio, you need to rebalance it periodically to keep the portfolio risk within expected limits. This is relevant from standpoint of market fluctuations. At the very outset, you may decide the time intervals after which you will be rebalancing. You can do it once in every six months or a year.

Planning for Retirement

Planning for retirement has become all the more important today than it was a few decades ago. There are reasons behind that. Due to increased life expectancy, you are going to live longer than your before generation. Owing to a sedentary lifestyle, you are more vulnerable to ailments like diabetes, hypertension and heart attacks. Healthcare costs are increasing with each passing year. Lastly, in absences of a social security net, you need to have your own funds to tackle all these issues.

Like many others, you might be thinking that it is too early to start planning now. In this way, your retirement planning may get postponed forever. In fact, improper

retirement planning can never let you retire from your job. What you do not know is that the earlier you start, the richer you retire. It happens due to the “magic of compounding”. In this way, you can even retire early and lead a hassle-free life. While planning for retirement, you need to clarify a few points like deciding an age at which you want to retire. Along with that estimate how much money you will need every month to meet your post-retirement expenses.

Manage your Debt wisely

Lack of debt management may eat up a major part of your paycheck. You may end up borrowing fresh loans to pay off older loans. If it gets out of control, then you may fall in a vicious debt trap. Your critical life goals may get sidelined and even your retirement may get delayed. However, strategizing your debt payment may keep you away from such troubles. All you need is being informed about how much you owe to whom. And chalk out a schedule to pay them off. In case you have a lot of debt to shoulder, start paying off the most expensive one. In fact, the credit card has been regarded as the most expensive form of debt. As soon as your salary gets credited each month, pay off your credit card balances in full. Do not fall for the lure of paying off the minimum balance. Even before you know, the interest will spiral up to eat out all your savings. Make it a point to use the credit card only in case of emergency. Always keep debt as the last resort. As far as possible, make down payments for your purchases.

In case you are shouldering big-ticket loans, look for portability option. You can transfer your loan to another bank offering a lesser rate of interest. In this manner, you will save a lot of money going out as interest. Never borrow for assets which are depreciating. Additionally, tax-inefficient loans like personal loans can be avoided as far as possible. You can think of saving and building a corpus to fulfill your goals. In this way, you can avoid falling into debt trap.

Get your risks covered

You need to realize that your life and property is vulnerable to risks. These risks can lead to loss of income and put you and your dependents in a financial jeopardy. Just like investing is essential for wealth accumulation, ensuring is essential for wealth preservation. However, investing and insurance are two separate things which most individuals do not understand. They buy a ULIP and feel themselves at ease. But, this is the biggest mistake which they make. They end up paying more and remain inadequately insured. Instead of this, a term insurance plan will be a wiser proposition to buy. Term insurance plan provides you higher risk coverage at a reasonable price. Do not expect returns from your life insurance policy.

Ideally, the sum assured needs to be at least 10 times your annual income. Apart from life insurance, you may need a health insurance as well. It will enable you to

access high-quality healthcare at reasonable prices. Do not end up shelling out more for less. Before buying life insurance, you can compare policies online to select the one which satisfies your requirement at affordable prices.

Planning your Estate

Believe it or not! each one of us has an estate. Whether it is your vehicle or your home; the cash lying in your saving and current account, every asset constitutes an estate. It is your responsibility to decide what happens to these after you leave this world. You need to ensure that the right asset is assigned to the appropriate individual in the right manner. Ultimately, you need to think about estate planning.

Often, individuals misconstrue that estate planning is meant only for the wealthy. However, the reality is totally opposite. It is relevant for every person who cannot afford to leave his assets in the hands of the unwanted after he is no more around. Most of us might have never thought of doing estate planning. Some of us might be putting it off to a later date. But this is a wrong approach. You can start off estate planning as soon as you begin accumulating assets.

You can start by preparing an inventory of assets that you own. Create a list of beneficiaries & proportion of assets that you want to allocate to each one of them. Make a will which can be the best favor for your loved ones from your end. It will ensure that the beneficiaries do not have to face challenges in order to get the ownership of assets that you assign them. In case you are clueless about how to get things done, then consult an experienced **lawyer**.

Planning your Taxes

In tax planning, you analyze your finances from a tax efficiency point of view so as to plan these in the most optimized manner. You attempt to take advantage of the various tax exemptions, deductions, and benefits so as to reduce your tax liability at the end of the financial year. Even though tax planning is very much legitimate in nature, you need to ensure that you do not indulge in tax evasion or tax avoidance.

Lawyer is a person who practices law, as an advocate, attorney, attorney at law, barrister, barrister-at-law, bar-at-law, counsel, counselor, counsellor, counselor at law, solicitor, chartered legal executive, or public servant preparing, interpreting and applying law but not as a paralegal or charter executive secretary.

From a tax planning standpoint, you can make use of a number of tax saving options. Like the deductions available from Sections 80C through to 80U that are given in the Income Tax Act. The most efficient way to take advantage of Section 80C is to invest in Equity Linked Savings Scheme (ELSS). It has the shortest lock-in period as compared to all the other tax-saving options available under Section 80C. In this, you can save taxes up to \$45000 and avail a deduction of up to \$1.5lac. Additionally, the ELSS is a diversified equity fund helps you to achieve your financial goals via investment in the equity market.

ESTIMATION OF FINANCIAL REQUIREMENTS OF A FIRM



<https://www.youtube.com/watch?v=vMpOrhF1vnk>

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Most businesses, especially when they are starting up or planning for expansion, face periods when they need to rely on outside resources to stay afloat. Whether the funds come from the owner's pocket, accumulated business profits, or outside funding sources, they provide the lifeline that keeps the business going when expenses exceed revenue for a prolonged period. Use the information here to forecast how much money you need — and for how long.



Citation: <https://www.bizjournals.com/bizjournals/how-to/growth-strategies/2018/02/how-to-find-the-right-financial-strategy-for-your.html>

To estimate the funding requirement your business faces, take these steps:

- **Create a realistic forecast of your financial situation.** Follow the steps for preparing a pro forma or estimated statement of income, expenses, and profit, along with an estimated balance sheet and cash flow statement.
- **Estimate your funding need.** Use your financial forecasts, and especially your cash flow projection, to determine how long you anticipate expenses to exceed revenue and by how much. Doing so helps you get a handle on when you expect expenses to be incurred, when you expect revenues to roll in, and the amount of funding you need in order to cover the gap.
- **Create a funding time frame.** After you establish how much funding you need, create a schedule for how long you need the funding to last before your business needs to become self-sufficient. This schedule, called your *time frame*, should include dates by which you plan to meet revenue-generating *milestones* — for example, first customer, first major contract, first \$10,000 in sales, and so on — that you can monitor as indicators that your business is on track to achieve profitability before funding runs out.

As you forecast how long your funding needs to last, be aware of these terms:

- **Runway:** The amount of time funding needs to last before your business becomes profitable and self-sufficient or until additional funding will be required
- **Burn rate:** The speed with which you expect to spend the funding you have raised — in practical terms, the amount of cash required each month to cover the costs of staying in business

Profitability and Financing a New Venture

New ventures need financing. As new ventures are just starting off, they do not generate enough income to be able to pay for the up-front costs. Without sufficient funding, many brilliant ideas have met stumbling blocks and come to a sad end despite holding great potential. A key question for anyone starting a new business should be, “How profitable is the opportunity?” We have two concerns in this regard:

- How do we project the firm’s future profits?
- At what sales volume will we achieve a zero operating **profit**, where sales revenues exactly cover the firm’s operating costs and expenses, which is the firm’s operating profit break-even point?

Both of these questions are of significance to the company’s potential investors, whether they be our lenders or our partners.

Profit is a financial benefit that is realized when the amount of revenue gained from a business activity exceeds the expenses, costs and taxes needed to sustain the activity.

Forecasting Profits

A company's profit is a primary source for financing future growth. The more profitable a company, all else being constant, the more funds it will have for growing the firm. Thus, we need a basic awareness of the factors that drive profits, so that we may make the needed profit projections. In this regard, a company's net income or net profits are dependent on five variables:

- **Amount of sales** Much that we project about a company's financial future is driven by the assumptions we make regarding future sales.
- **Operating expenses** Operating expenses include such expenses as the cost of acquiring our product or the expenses related to marketing and distributing the product. We will want, as best we can, to classify these expenses according to those that do not vary as sales increase or decrease (*fixed* operating expenses) versus those that change proportionally with sales (*variable* operating expenses).
- **Interest expense** When we borrow money, we agree to pay a fixed interest rate on the loan principal. For instance, if we borrow \$25,000 for a full year and commit to pay 12% interest, our interest expense would be \$3,000 for the year ($12\% \times \$25,000$).
- **Taxes** The firm's taxes are, for the most part, a percentage of taxable income, where the rate increases as the amount of income increases.

Let us consider an example to demonstrate how we would estimate a new venture's profits in future years.

Example: We are contemplating a new business, Oakcrest Products, Inc., to make stair parts for more expensive home. A newly developed lathe will permit the new firm to be more responsive to different design specifications, while doing so

more cheaply than heretofore possible. In studying the market and the economics of the venture, we have made the following estimates for the next three years:

1. Oakcrest Product's forecasted sales for the next three years are as follows:

	<u>Projected Unit Sales</u>	<u>Projected Dollar Sales</u>
Year 1	2,000	\$250,000
Year 2	3,200	\$400,000
Year 3	4,800	\$600,000

The dollar sales projections assume that the average unit sales price for each part will be \$125.

2. The fixed production costs are expected to be \$100,000 per year, while the fixed operating expenses (marketing expenses, and administrative expenses) should be about \$50,000. Thus, the total fixed operating costs will be \$150,000.
3. The variable costs of producing the stair parts will be around 20% of dollar revenues (sales); and the variable operating expenses will be approximately 30% of dollar sales. In other words, given an expected \$125 sales price, the combined variable costs per unit, both for producing the stair parts and for marketing the products will be \$62.50 $[(20\% + 30\%) \times \$125]$.
4. The bank has agreed to loan the firm an increasing amount over the next three years at an interest rate of 12%. The bank would loan \$100,000 in the first year, another \$50,000 in the second year, and an additional \$50,000 in the third year. Thus, the loan balance each year would be as follows:

Year 1	\$100,000
Year 2	\$150,000
Year 3	\$200,000

5. Assume the income tax rate will be 25%; that is, taxes will be 25% of earnings before tax (taxable income).

Given the foregoing assumptions, we may forecast Oakcrest's profits, as shown in Exhibit 1.

Exhibit 1: Oakcrest Product, Inc. Projected Income Statements

	Year 1	Year 2	Year 3	
Sales	\$250,000	\$400,000	\$600,000	Line 1
Cost of goods sold				
Fixed costs	\$100,000	\$100,000	\$100,000	Line 2
Variable costs (20% of sales)	50,000	80,000	120,000	Line 3
Total cost of goods sold	\$150,000	\$180,000	\$220,000	Line 4
Gross profits	\$100,000	\$220,000	\$380,000	Line 5
Operating expenses				
Fixed expenses	\$50,000	\$50,000	\$50,000	Line 6
Variable expenses (30% of sales)	75,000	120,000	180,000	Line 7
Total operating expenses	\$125,000	\$170,000	\$230,000	Line 8
Operating profits	-\$25,000	\$50,000	\$150,000	Line 9
Interest expenses (interest rate 12%)	12,000	18,000	24,000	Line 10
Earnings before tax	-\$37,000	\$32,000	\$126,000	Line 11
Taxes (25% of earnings before tax)	0	8,000	31,500	Line 12
Net income	-\$37,000	\$24,000	\$94,500	Line 13

In projecting the firm's net income for the next three years, the following steps were taken:

1. We first compute the expected cost of goods sold (line 4) and the operating expenses (line 8) for the given level of sales. Subtracting these costs and expenses from the firm's sales gives us the company's operating profits, or earnings before interest and taxes (line 9).
2. We next calculate the interest expense for each year line 10), which in this case, was determined as follows:

Year 1: 12% X \$100,000	=	\$12,000
Year 2: 12% X \$150,000	=	\$18,000
Year 3: 12% X \$200,000	=	\$24,000

3. The final computation involves estimating income taxes, where the taxes are 25% of earnings before tax. However, we have a small complication resulting from the \$37,000 loss in year 1. Typically, when a company has a loss from its operations, the tax laws allow us to use the loss against any income in other years. To keep things from becoming too complicated, we shall assume that we simply do not have to pay taxes when we have a loss.

The result of all our computations suggests that the firm will lose money in year 1 in the amount of \$37,000, followed by positive net income in years 2 and 3 of \$24,000 and \$94,500, respectively. We have completed our first task, that of projecting the firm's future profits. Let's now turn to the second issue: determining the firm's break-even point, an issue of concern to any **investor** in our company.

Break-Even Analysis

If we were investing in a startup company, would we not want to know how long it would take for the firm to become profitable? The answer is an unequivocal “yes.” So it is with anyone investing in a new business. Even the least sophisticated investor will want an answer to this question. They might, however, ask the question in a slightly different way by wanting to know, “How many units of the firm’s product must be sold before it becomes profitable?” Given the number of break-even units, along with our sales forecast, we may easily draw a conclusion about the time required to reach profitability.

Investor is a person that allocates capital with the expectation of a future financial return.

To measure a company’s break-even point, we can use an equation that is an adaptation of the income statement. Recalling an income statement, such as the one presented in Exhibit 1, we know that operating profits, or earnings before interest and taxes, is measured as follows:

$$\frac{\text{Total dollar sales}}{\text{cost of goods sold}} - \text{operating expenses} = \text{operating profits} \quad (1)$$

Using the above equation, we simply want to find the number of units sold, and the corresponding dollar sales where *operating* profits are equal to zero. In other words, we want to calculate the sales level where:

$$\frac{\text{Total dollar sales}}{\text{cost of goods sold}} - \text{operating expenses} = 0 \quad (2)$$

We could use the foregoing equation, and by trial and error, find the break-even sales level. However, an alternative and better approach is to restate the above equation where we are finding the sales level that exactly covers the firm’s total variable and fixed costs. That is, where:

$$\frac{\text{Total dollar sales}}{\text{total variable costs}} - \frac{\text{total fixed costs}}{\text{costs}} = 0 \quad (3)$$

Also, since a firm’s total dollar sales equals:

(Selling price per unit) × (the number of units sold,)

and total variable costs equals:

(variable costs per unit) × (the number of units sold),
then our break-even equation may be restated as:

$$\left(\frac{\text{selling price}}{\text{unit sold}} - \frac{\text{variable cost}}{\text{unit sold}} \right) - \frac{\text{total fixed costs}}{\text{unit sold}} = 0 \quad (4)$$

Solving for the numbers of units sold that produce a zero operating profit, we have

$$\frac{\text{break-even units sold}}{\text{unit sold}} = \frac{\text{total fixed costs}}{\text{selling price} - \text{unit variable costs}} \quad (5a)$$

Thus, we see that the break-even point is a function (1) the firm's total fixed operating costs (numerator), and (2) the unit-selling price less the unit variable cost (denominator). The higher the fixed costs, the more units we must sell to break even; and the greater the difference between the unit selling price and the unit variable cost, the fewer units we must sell to break even. The difference between the unit selling price and the unit variable cost is the contribution margin; that is, for each unit sold, a contribution is made toward covering the company's fixed costs.

Finally, let's shorten equation (5) by using the following notations:

Let Q_B = the number of units sold to break even.

F = the total fixed operating costs (includes all operating costs that are constant at various levels of production/sales).

P = the unit selling price.

V = the variable cost per unit (includes all costs that vary directly with the volume produced/sold).

Equation (5) may now be represented more efficiently as:

$$Q_B = \frac{F}{P - V} \quad (5b)$$

Example: We can return to the Oakcrest Products, Inc. example used earlier, where we forecast the firm's profits. As was shown in Exhibit 1, the firm achieved profitability in the second year. What we now want to know is exactly how many units must be sold, and the corresponding sales dollars, to achieve a break-even point in *operating* profits. The information needed from the example is as follows:

F = the total fixed operating costs = \$150,000

P = the unit selling price = \$125.

V = the variable cost per unit = \$62.50

Thus, given the information, the break-even point in number of units, Q_B , is determined as follows:

$$Q_B = \frac{F}{P - V} = \frac{\$150,000}{\$125 - \$62.50} = 2,400 \text{ units}$$

Also, we can know that the break-even in sales dollars is

$$\begin{aligned} \text{Dollars sales breakeven} &= \text{break-even units} \times \text{sales price per unit} \\ &= 2,400 \text{ units} \times \$125 \\ &= \$300,000 \end{aligned}$$

We now have an understanding of how to forecast profits and to measure the break-even point in terms of profits. We shall next begin our inquiry into the actual financing of the firm, first by looking at the nature of the financial requirements we must satisfy, and then examining how we may estimate the amount of these requirements.

Determining the Nature of financial Requirements

The specific needs of a proposed business venture govern the nature of its initial financial requirements. If the firm is a food store, financial planning must provide for the store building, cash registers, shopping carts, inventory, office equipment, and other items required in this type of operation. An analysis of capital requirements for this or any other type of business must consider how to finance (1) the needed investments and expenses incurred to start and grow the company, and (2) any personal expenses if the owner does not have other income for living purposes. Let us consider these two needs.



Citation: <https://www.pharmapproach.com/wp-content/uploads/2018/08/What-type-of-business-should-i-start.jpg>

Startup Investment and Financing Requirements

To understand the financing requirements for a new company, visualize a balance sheet, as pictured in Exhibit 2. The left-hand side of the balance sheet represents the assets owned by the company, such as cash, accounts receivable, and equipment. The right-hand side comprises the firm's sources of financing; that is, it tells us who has provided the needed capital for the business and how much. We shall focus first on the left-hand or asset side of the **balance sheet**, and then we will discuss the left-hand side (the sources of financing).

Balance sheet is a statement of the financial position of a business which states the assets, liabilities and owner's equity at a particular point in time. In other words, the balance sheet illustrates your business's net worth.

Exhibit 2: Balance sheet

ASSETS	LIABILITIES (DEBT) AND EQUITY
CURRENT ASSETS: Cash Accounts receivable Inventories Prepaid expenses + FIXED ASSETS: Machinery & equipment Buildings Land + OTHER ASSETS: Investments Patents = TOTAL ASSETS	CURRENT DEBT: Accounts payable Accrued expenses Short-term notes + LONG-TERM DEBT: Long-term notes Mortgage + EQUITY: Owner net worth or Partnership equity or Common stock equity = TOTAL DEBT & EQUITY

The Types of Assets Needed to Start the Business

A firm's assets are generally classified into one of three categories or types: (1) current assets, (2) fixed assets, and (3) other assets. These assets types, and the specific assets included in each category, are highlighted in Exhibit 2. A brief description of each of the asset categories is helpful in understanding the assets needed in starting a new business.

Current Assets

Current assets comprise the assets that are relatively liquid; that is, within the firm's operating cycle, these assets will be

converted into cash. The current asset items mainly include cash, accounts receivable, inventories, and prepaid expenses. Current assets represent the company's working capital. Also, the term circulating capital is sometimes applied to these three items, emphasizing the constant cycle from cash to inventory to receivables to cash, and so on. Careful planning is needed to provide adequate current asset capital for the new business.

- **Cash:** Every firm must have the cash essential for current business operations. Also, a reservoir of cash is needed because of the uneven flow of funds into the business (cash receipts) and out of the business (cash expenditures). The size of this reservoir is determined not only by the volume of sales, but also by the regularity of cash receipts and cash payments. Uncertainties exist because of unpredictable decisions by customers as to when they will pay their bills and because of emergencies that require substantial cash outlays. If an adequate cash balance is maintained, the firm can take such unexpected developments in stride. However, a firm could have too much cash. While we certainly need adequate cash to cope with business uncertainties, we also want to make a good return on our investment. Since cash is a non-income producing asset, there is a limit as to how much cash we want to keep on hand.
- **Accounts Receivable:** The firm's accounts receivable consist of payments due from its customers. If the firm expects to sell on a credit basis - and in many lines of business this is necessary - provision must be made for financing receivables. The firm cannot afford to wait until its customers pay their bills before restocking its shelves.
- **Inventories:** Although the relative importance of inventories differs considerably from one type of business to another, they often constitute a major part of the working capital. Seasonality of sales and production affects the size of the minimum inventory. Retail stores, for example, may find it desirable to carry a larger-than-normal inventory during the Christmas season.
- **Prepaid Expenses:** When starting a company, we may need to prepay some of the expenses. For example, insurance premiums may be due before the business actually opens, or utility deposits may be demanded before the electricity at the business can be turned on. For accounting purposes, these expenses are recorded as current assets, and then expensed during the year as used. Each of these expenses may be small individually, but together they can be quite substantial.

Fixed Assets

Fixed assets are the more permanent type assets that are intended for use in the business, rather than for sale. As shown in Exhibit 1, the fixed assets needed in a new

business might include machinery and equipment, buildings, and land. For example, a delivery truck used by a grocer to deliver merchandise to customers is a fixed asset. In the case of an automobile dealer, however, a delivery truck to be sold in the ordinary course of business would be part of the inventory and thus a current asset.

- The nature and size of the fixed-asset investment are determined by the type of business operation. A modern beauty shop, for example, might be equipped for around \$80,000, whereas a motel sometimes requires 50 or more times that amount. In any given kind of business, moreover, there is a minimum quantity or assortment of facilities needed for efficient operation. It would seldom be profitable, for example, to operate a motel with only one or two rooms. It is this principle, of course, that excludes small business from automobile manufacturing and other types of heavy industry.
- A firm's flexibility is inversely related to its investment in fixed assets. Investments in land, buildings, and equipment involve long-term commitments. The inflexibility inherent in **fixed-asset** investment underscores the importance of a realistic evaluation of fixed-asset needs.

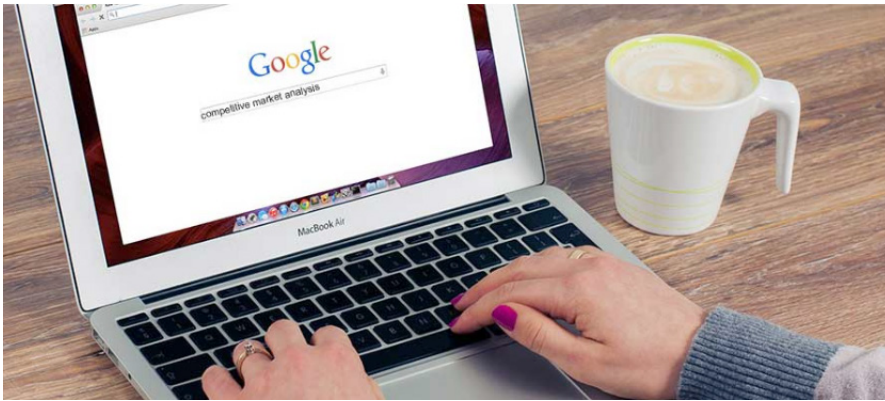
Fixed asset is a long-term tangible piece of property that a firm owns and uses in its operations to generate income.

Other Assets

The third category of assets is classified as other assets, and includes such items as intangible assets, these being patents, copyrights, and goodwill. For the startup company, this category of other assets could also include organizational costs -costs incurred in organizing and promoting the business. Such startup costs are shown as an *other asset* and expensed in future years. Finally, other assets comprise investments made, but not actually used in operating the business. For instance, the company might acquire some long-term investments in stocks or some land that is being held for speculative motives. However, most new companies seldom have any long-term investments, nor do they often have intangible assets.

Funds for Personal Living Expenses

In many startup businesses, we cannot limit planning to the business investments described in the above discussions. Frequently, financial provision must also be made for the owner's personal living expenses during the initial period of operation. Whether or not these expenses are recognized as part of the business capitalization, they must be considered in the business financial plan. Inadequate provision for personal expenses will inevitably lead to a diversion of business assets and a departure from the financial plan.

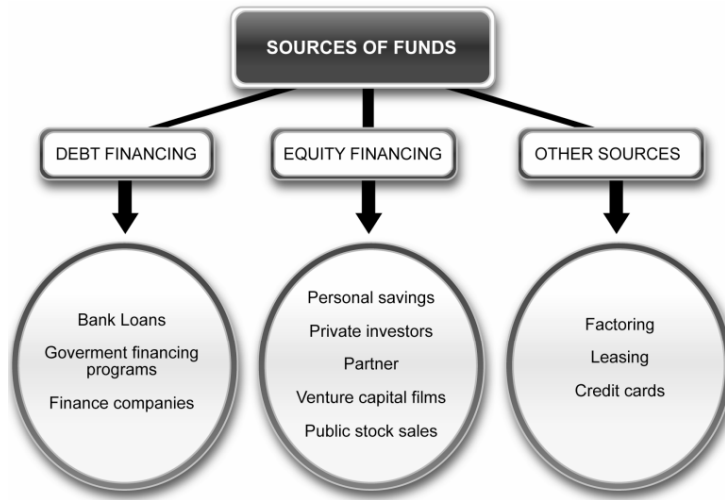


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Thus, failure to incorporate these expenses into the plan raises a red flag to any prospective lender or investor in the firm. Having studied the nature of the assets essential in starting and operating a company, we now shift our attention to the financing of these assets. We shall begin by describing the basic types of capital available for financing the new firm.

Types of Financing Sources

Once you have estimated your expenses, the next step would be to determine how you are going to acquire funds for those expenses. There are many sources of funding available for entrepreneurial ventures. These alternatives can be generally grouped into two major sources of finance which are debt financing and equity financing. Below figure depicts a summary of these alternatives that can be used by entrepreneurs to finance their new ventures or even expansion of their existing venture(s).



Citation: https://webcache.googleusercontent.com/search?q=cache:t9Jg1rcy23wJ:https://www.tankonyvtar.hu/hu/tartalom/tamop412A/2011-0021_37_entrepreneurship/BMET5103_Entrepreneurship_07.pdf+&cd=1&hl=en&ct=clnk&gl=in

Financing comes from two basic sources: debt (liabilities) and ownership equity. Debt is money that we borrow and must be repaid at some pre-determined date in the future. Equity, on the other hand, represents the owners' investment in the company - money they have personally put into the firm without any specific date for repayment. As owners, they recover their investment by withdrawing money from the company or by selling their interest in the firm. These basic categories were shown in Exhibit 2.

Debt Capital

As presented earlier in Exhibit 2, debt capital is divided into short term and long term. Short-term liabilities (debt) include money borrowed that must be repaid within the next 12 months; long-term debt comes due and payable some time after 12 months, depending on the terms of the loan. The short-term sources of debt consist largely of accounts payable, accrued expenses, and short-term notes. These short-term sources of money may be defined as follows:

- **Accounts payable:** Accounts payable represents credit extended to our company by suppliers. A firm that purchase inventory for eventual resale either must pay cash, or the supplier extends credit; for instance, if credit is provided, the purchaser may have 30 or 60 days before paying for the inventory. This form of credit extension or loan is called accounts payable.

- **Accrued expenses:** Accrued expenses are those expenses that have been incurred, but not paid. For instance, employees may perform work, but payday may not come until next month.
- **Short-term notes:** Short-term notes consist of amounts we have borrowed from a banker or other lending sources -- for example, a 90-day note at the bank.

It should be noted here that short-term credit represents one of the primary sources of financing for smaller companies. Small businesses have access to fewer sources of capital than their larger counterparts; thus, they must rely more on short-term debt capital.

Long-term debt includes loans from banks or other sources of capital that loan on a long-term. If you borrow money for five years to buy equipment, you will sign an agreement (called a note) promising to repay the money in five years. Alternatively, you may borrow money to purchase real estate, such as a warehouse or office building. Here the loan may be for 30 years, and the lender uses the real estate as collateral for the loan. If the borrower is unable to repay the loan, the lender can take the real estate in settlement for the loan. This type of long-term loan is called a **mortgage**.

Mortgage is a debt instrument, secured by the collateral of specified real estate property, that the borrower is obliged to pay back with a predetermined set of payments.

Owner's Equity Capital

The owner's equity is simply the money the owners invest in the business. They are the residual owners, in that they receive money only if there is something left over after repaying the debt holders. Thus, if the company is liquidated, the creditors are paid first, and only then are the owners paid. Also, in each year, the creditors must be paid the interest on the debt before the owners can participate in the income from the business.

The amount of equity in a business is determined by (1) the amount of the owner's initial investment, as well as any later investments, in the business; and (2) the income retained within the business from its beginning to the present, less any withdrawals by the owners. Thus, the owner's equity consists of the following:

$$\begin{array}{rcccl} \text{Owner's investment} & & \text{Profits retained} & & \text{Owner's withdrawals} \\ \text{in the firm} & = & \text{within the business} & - & \text{ifrom the firm} \end{array}$$

Finally, financing a new business entails raising debt capital and equity financing. However, knowing the basic types of capital is not enough. We must also estimate the *amount* of our asset requirements and decide how we will go about financing these needs. More specifically, we have to answer the question, “How much will we need in inventories, equipment, and other assets and where will the money come from to pay for these assets?”

Estimating the Amount of Funds Required

One of the reasons having a business plan is a good first step for starting a business is to answer the fundamental, and critical question of how much money it will take to get the venture started.



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- When estimating the magnitude of capital requirements for a small business, the entrepreneur quickly feels the need for a “crystal ball.” The uncertainties surrounding an entirely new venture make estimation difficult. But even for established businesses, forecasting is never exact. Nevertheless, when seeking initial capital, the entrepreneur must be ready to answer the question “How much?”
- The amount of capital needed by various types of new businesses varies considerably. High-technology companies, such as computer manufacturers, designers of semiconductor chips, and gene-splicing companies, often require several million dollars in initial financing. Stephen A. Duzan, president of

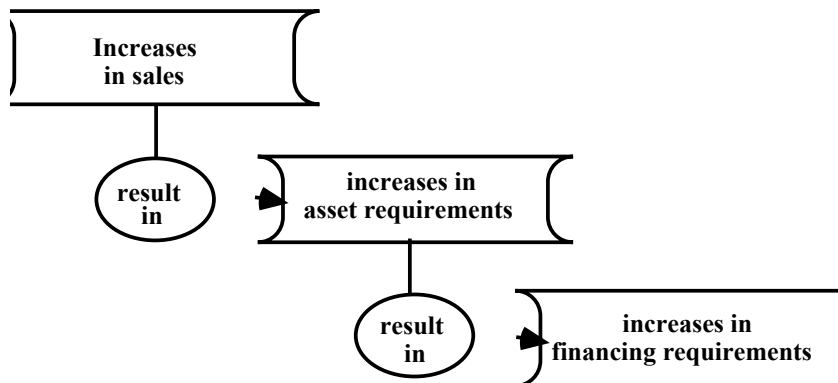
Immunex Corp. of Seattle, WA, estimates that it takes \$60 million to bring a new biotech company from development stages to the market.

- Most service businesses, on the other hand, require smaller amounts of initial capital. For example, Debora Tsakoumaki started her business, HB Bakery Connection, in Boulder, CO, with \$1,000. For a fee, Tsakoumaki will arrange delivery of a personalized cake for clients who call her on the telephone. She has developed a network of 400 bakeries in almost every state that bake and deliver cakes. In her first year of operation, she filled over 350 orders.
- The explanations that follow will show how a prospective entrepreneur may use a “double-barreled” approach to estimating capital requirements by (1) applying industry standard ratios to estimate dollar amounts, and (2) cross-checking the dollar amounts by break-even analysis and empirical investigation. Robert Morris Associates, Dun & Bradstreet, Inc., banks, trade associations, and other organizations compile industry standard ratios for numerous types of businesses. If no standard data can be located, then estimating capital requirements inevitably involves common sense and educated guesswork.

Estimating Asset Requirements

While estimating asset requirements involves some guesswork, the key to our effectively forecasting asset needs depends on an understanding of the relationship between projected sales and needed assets. A firm's sales are the primary driving force of future asset needs. That is, as sales increase, there will be an increase in a firm's asset needs, which in turn results in a need for more financing. These relationships are depicted graphically in Exhibit 3.

Exhibit 3: Sales-asset-financing relationships



Stated differently, asset needs tend to follow sales increases. Consequently, a company's asset needs may be estimated as some percentage of sales increases. That

is, given that we have estimated our future sales, a ratio of assets to sales may be used to estimate asset requirements

$$\text{Assets as a percentage of sales} = \frac{\text{Assets}}{\text{Sales}} \quad (6)$$

Restating the equation,

$$\text{Assets} = \text{Sales} \times \frac{\text{Assets as a percentage of sales}}{\text{percentage of sales}} \quad (7)$$

For example, if we believe that sales will be \$1 million, and we know that within our industry, assets tend to run about 50% of sales, we could reasonably expect that the firm's asset requirements will be \$500,000 (50% x \$1,000,000).

While the asset-to-sales percentage will vary over time and with individual firms to some extent, the relationship tends to be relatively constant. For example, the asset-to-sales relationship for grocery stores is on average around 20%, compared to about 65% for an oil and gas company. We may also use this method, which we shall call the percentage-of-sales technique, to project the *individual* asset investments. For instance, we can expect there to be a relationship between the amount of accounts receivable and sales. To illustrate how we could use the percentage-of-sales technique for forecasting purposes, consider the following example.

Example: Katie Dalton is planning to start a new business, Trailer Craft, Inc., to produce small trailers to be pulled behind motorcycles. After studying a similar company in a different state, she believes the business could generate sales of approximately \$250,000 in the first year, and have significant growth potential in future years. Based on her investigation of the opportunity, she has also made the following projections:

- Earnings after taxes will be about 12% of sales; that is, \$250,000 of sales should result in after-tax profits of \$30,000 (12% x \$250,000)
- The requirements for cash, accounts receivable, and inventories have been estimated as a percentage of sales for the first year and are as follows:

<u>Assets</u>	<u>Percentage of Annual Sales</u>
Cash	5%
Accounts receivable	10%
Inventories	25%

- Dalton has searched for a manufacturing facility, and has found a building suitable for the needs of the business that is currently available at a reduced price, owing to a recent real estate downturn. The building, along with the necessary equipment, will cost about \$50,000.

Given the anticipated sales of \$250,000 and the above asset-to-sales relationships, the forecasted asset requirements for Trailer Craft, Inc. are as follows:

Cash	\$12,500	(5% of sales)
Accounts receivable	25,000	(10% of sales)
Inventories	<u>62,500</u>	(25% of sales)
Total current assets	\$100,000	
Fixed assets (machinery)	<u>50,000</u>	(Estimated market price)
Total assets	<u>\$150,000</u>	

Thus, we could expect to need \$150,000 in assets, some immediately and the rest as the firm continues in its first year of operation. While these amounts are only rough approximations, the estimates should be relatively close if we have identified the asset-to-sales relationships correctly and if sales materialize as expected.

Estimating Financing Requirements

By relying on the relationship between assets and sales, we have provided a way to estimate the firm's asset requirements. Someone, however, must provide the money to purchase these assets. In other words, for every dollar of assets, there must be a dollar of financing. As our accountant would say, "The debits must equal the credits, or for every use of cash, there must be a source of cash." We now want to focus on the issue of the sources of financing, or what we call the firm's financial requirements.



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Correctly forecasting a company's financial requirements requires an understanding of certain guidelines or principles of finance. Five such guidelines may be stated as follows:

- **The more assets needed by a firm, the greater the financial requirements.** As already noted in Exhibit 3, the asset requirements drive a firm's financial requirements. Thus, the faster a firm is growing in sales, the greater will be its asset requirements, and, consequently, the greater the pressure to find the needed financing.
- **A company should finance its growth in a way that allows it to maintain a certain amount of liquidity.** In business, liquidity is the ability to meet maturing financial obligations as they come due. A conventional measurement of a company's liquidity is its current ratio, which merely compares the firm's current assets (mainly cash, accounts receivable, and inventories) to its current or short-term debt (short-term liabilities). The current ratio is measured as follows:

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}} \quad (8)$$

For instance, to insure that we have the ability to pay short-term debts as they come due, we might want to maintain a current ratio of two; that is, current assets are twice as much as current liabilities.

- **There is a limit as to how much debt a firm can use in financing the business.** The amount of total debt, both long term and short term, is limited by the amount of equity provided by the owners. We cannot expect the bank to loan all the money needed to finance the company. Owners must put some of their own money into the venture. Thus, we may decide that at least half of the firm's financing should come from equity and the remaining half be financed with debt. (Bear in mind that if we do not make a decision in this matter, the banker will make the decision for us.)
- **Some short-term debt becomes available spontaneously as the firm grows.** Certain types of short-term debt are spontaneous in nature; thus the name spontaneous financing. That is, these sources will increase as a natural consequence of the firm's sales increasing. For instance, as sales increase, we will purchase more in inventories and accounts payable will increase. The supplier is essentially satisfying some of the firm's financing needs in the form of accounts payable. The same thing is true for accruals, such as accrued wages. Typically, these spontaneous sources of financing follow a certain percentage of sales. For example, spontaneous sources of financing might average 10% of sales.
- **There are two sources of equity capital: external and internal.** The equity ownership of a company comes initially from the owners making an investment

in the firm. We think of these funds as external equity; that is, they come from outside the business itself. After the company has been started and is in operation, additional equity may then come either from (1) the owners investing more in the business (external equity again), or (2) profits for the year, in whole or part, being retained within the company for future investments, rather than being distributed to the owners. This latter source, the retention of profits within the company for investment purposes, is called internal equity. These funds come not from going to investors and raising capital, but from reinvesting the company's profits into the business - money that could have been distributed to the owners, but instead was reinvested for them. For the small firm, internal equity, which is merely the retention of profits for financing company growth, is *the* primary source of equity.

Finally, a firm's financing requirements, the money needed for operating and growing the company, comes from several sources, these being (1) external financing, either from borrowing money (debt capital) or from the owner's investment (**equity capital**), (2) sources of spontaneous financing, such as accounts payable, and (3) internal financing, which comes from the profits retained within the business, rather than being distributed to the owners. Expressed in equation form, we can say that:

Total asset requirements = total sources of financing (9)

And that

$$\left(\begin{array}{c} \text{total sources} \\ \text{of financing} \end{array} \right) = \left(\begin{array}{c} \text{external sources} \\ \text{of financing} \end{array} \right) + \left(\begin{array}{c} \text{spontaneous} \\ \text{sources} \\ \text{of financing} \end{array} \right) + \left(\begin{array}{c} \text{profits retained} \\ \text{in business} \end{array} \right) \quad (\text{Eq. 10})$$

The foregoing equations capture the essence of forecasting financial requirements. If we understand these relationships, we will be prepared to forecast our firm's financial requirements. An example can best illustrate this process.

Example: Let's return to the Trailer Craft, Inc. example, where we projected the asset requirements for the firm during its first year of operations. Assuming sales, as forecasted, of \$250,000, we estimated the following asset requirements:

Equity capital is funds paid into a business by investors in exchange for common or preferred stock. This represents the core funding of a business, to which debt funding may be added.

Cash	\$12,500
Accounts receivable	25,000
Inventories	<u>62,500</u>
Total current assets	\$100,000
Fixed assets (machinery)	<u>50,000</u>
Total assets	<u>\$150,000</u>

We should also recall that profits for the year are estimated to be \$30,000, based on earning after taxes per sales dollar of 12% (i.e., $12\% \times \$250,000 \text{ sales} = \$30,000$ profits). In addition, Katie Dalton, as the prospective owner of the new company, has made the following observations:

- Trailer Craft has negotiated with a supplier to extend credit on inventory purchases; as a result, it is expected that accounts payable will average about eight percent of sales.
- Accruals should run approximately 4% of annual sales.
- Dalton plans to invest \$40,000 of her personal savings in the venture in return for 20,000 shares of common stock.
- The bank has agreed to provide a short-term line of credit to Trailer Craft of \$20,000, which means the firm can borrow up to this amount as the need arises. However, as the firm has excess cash, it may choose to pay down the line of credit. For instance, during the spring and summer, business is particularly active. In these months, Trailer Craft may need to borrow the entire \$20,000 for buying inventory and extending credit to customers. However, during the winter months, a slack time, less money will be needed, so the loan balance could possibly be reduced.
- The bank has also agreed to help finance the purchase of the building to be used in manufacturing and warehousing the firm's product. Of the \$50,000 cost for the facilities and equipment, the bank will loan the company \$35,000, with the building serving as collateral for the loan. The loan will be a 25-year mortgage.
- As conditions for the bank agreeing to loan the money to Trailer Craft, Inc., the banker would impose two loan restrictions: (1) the firm's current ratio (current assets $\div$ current liabilities), should not fall below 1.75, and (2) no more than 60% of the firm's financing should come from debt, including both short term and long term; that is, total debt relative to total assets should not be greater than 60%. Failure to comply with either of these terms would result in the bank loans coming due immediately.

From the foregoing information, we may estimate the financial sources for Trailer Craft, Inc. as follows:

- Accounts payable: $(8\% \times \$250,000 \text{ sales}) = \$30,000$
- Accruals: $(4\% \times \$250,000 \text{ sales}) = \$10,000$
- Credit line: Per the agreement with the bank, Trailer Craft, Inc. may borrow up to \$20,000. Any additional financing must come from other sources.
- Long-term debt: The bank has agreed to loan Trailer Craft \$35,000 for the purchase of the real estate.
- Equity By year end the firm's equity should be around \$70,000, consisting of \$40,000 of the original investment in the company made by the owners, plus the projected \$30,000 in profits after taxes for the year that is to be retained within the company and not distributed to the owners $[(12\% \text{ net income-to-sales}) \times (\$250,000 \text{ sales}) = \$30,000]$

Based on the foregoing information, we may now formulate the projected debt and equity section of the balance sheet for Trailer Craft, Inc., which also reflects the financial requirements for the firm for the first year of business. These financial requirements are shown in the bottom portion of Exhibit 4, which contains Trailer Craft's complete projected balance sheet. Two comments need to be made about the final projected balance sheet in Exhibit 4. First, as we have noted earlier, sources must always equal uses, and assets must equal debt plus equity. For Trailer Craft, Inc., asset requirements were estimated to be \$150,000 by year-end; thus, debt and equity must likewise equal \$150,000. As a result, only \$15,000 of the \$20,000 credit line will be needed to bring the total debt and equity to \$150,000.

Exhibit 4: Trailer Craft, Inc. Projected Balance Sheet at Year End Assets

Assets		
Cash	\$12,500	
Accounts receivable	25,000	
Inventories	<u>62,500</u>	
Total current assets		\$100,000
Fixed assets (machinery)		<u>50,000</u>
Total assets		<u>\$150,000</u>
Debt and Equity		
Accounts payable:	\$20,000	
Accruals	10,000	
Credit line	<u>15,000</u>	
Total current liabilities		\$45,000
Long-term debt		<u>35,000</u>
Total debt		\$80,000
Equity:		
Common stock	\$40,000	
Retained earnings	<u>30,000</u>	
Total equity		<u>\$70,000</u>
Total debt and equity		<u>\$150,000</u>

Loan is the lending of money by one or more individuals, organizations, or other entities to other individuals, organizations etc.

Second, if all goes as planned, Trailer Craft would be able to satisfy the banker's **loan** restrictions, both in terms of the current ratio and the debt-to-total asset relationship. From the balance sheet, we can compute these ratios as follows:

$$\begin{aligned}\text{Current ratio} &= \frac{\text{current assets}}{\text{current liabilities}} \\ &= \$100,000 \div \$40,000 = 2.22\end{aligned}$$

and

$$\text{Debt ratio} = \frac{\text{total debt}}{\text{total assets}} = \$80,000 \div \$150,000 = 53.3\%$$

Hence, the current ratio would be 2.22, compared to a minimum requirement of 1.75, and the debt ratio would be 53.3%, compared to the maximum limit of 60%. Both outcomes would more than meet the bank's requirements.

Capitalization

The term capitalization has various connotations. In common parlance, it refers to the amount at which a company is valued based on its capital employed. Some of the experts on finance used this concept in a narrower sense and defined it as the par value of a company's shares and debentures, while some of them interpreted it as the par value of its total long-term funds which includes owners fund, borrowed funds, reserves and surplus earnings. In the context of financial planning however, it refers to the process of determining the amount of capital required by a company.

The capital estimation is arrived at by using the following two theories.

- Cost theory; and
- Earning theory.

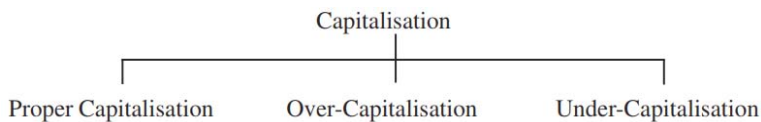
Let us have a brief about these two theories.

- **Cost Theory:** According to the cost theory of capitalization, the amount of capital required by the company is calculated by adding up the cost of its

fixed assets, the amount of its working capital and the cost of establishing the business. This approach is simple and used widely in case of new companies.

- **Earning Theory:** According to earning theory, the capital requirement of a company is calculated on the basis of the capitalized value of its earning. For example, if the average annual earning of a company is \$ 5 lakh and the normal rate of return on the capital employed in case of companies in the same industry is 10%, then the amount of capitalization is \$50 lakh. For a new company the amount of capitalization is calculated on the basis of its estimated earning. For example, if a new company expects to earn an average annual income of \$3 lakh and the normal rate of return of the industry is 5%, then the amount of capitalization or the quantum of fund it would require to run the business is \$60 lakh. This approach of capitalization is considered more rational and relevant because it helps in evaluating as to how far the actual capital employed is justified by the earning of the company. If the actual rate of return is same as the normal rate of return then it is said to be proper capitalized. But in real sense, a **company** may be either over capitalized or under capitalized that means the actual rate of return may be less or more than the normal rate of return. Let us know in detail about the concept of over-capitalization and under-capitalization in the next section.

Company is a legal entity made up of an association of people, be they natural, legal, or a mixture of both, for carrying on a commercial or industrial enterprise.



Citation: <http://download.nos.org/srsec319new/319EL17.pdf>

Over-Capitalization

A company is said to be over-capitalized if its capital employed is more than its proper capitalization. For example, if a company's average annual earnings is \$2,00,000 and the normal rate of return is 10%. Then its proper capitalization is

\$20,00,000. Now, if the actual capital employed (total long term funds) is \$25,00,000 it will be treated as over-capitalized. You can also put it in another simpler way i.e., if a company's actual rate of earnings is less than the normal rate of return, it is treated as a case of over-capitalization. In the above example, the company's actual rate of earnings works out as 8%, which is less than the normal rate of return i.e., 10%. So, it is considered as over-capitalized and the company is not in a position to pay interest and dividends at a fair rate. Such a situation may be caused by the following factors:

- Excessively high price paid for the purchase of goodwill and other fixed assets.
- Underutilization of production capacity.
- Raising more capital in the form of shares and debentures than required.
- Liberal dividend policy.
- Higher rate of corporate taxation.
- Underestimation of capitalization rate or overestimation of earnings while deciding on the amount of capital to be raised.

Over-capitalization is not desirable in the long run interest of the shareholders and the company. It leads to lower rate of dividend, reduction in the market value of shares and difficulty in raising more funds. Hence, there is need to rectify such situation as quickly as possible by reducing debt, efficient utilization of assets, and by following a conservative dividend policy.

Effects of Over-capitalisation	Remedies of Over-capitalisation
● Lower rate of dividend	● Debts may be redeemed
● Reduction in market value of share	● Efficient utilisation of resources
● Difficulty in raising additional funds.	● Conservative dividend policy

Under-Capitalization

Under-capitalization is just the reverse of over-capitalization. In other words, a company is said to be under-capitalized if its capital employed is less than its proper capitalization i.e., the amount of capital invested is not justified by its annual earnings. In the earlier case, for example, if the company's actual capital employed is \$16,00,000 it shall be treated as under-capitalized as it is less than \$20,00,000, the proper capitalization. Alternatively, if a company's actual rate of earnings is more than the normal rate of return, it is treated as a case of under-capitalization. This does not imply that the company suffers from inadequacy of capital.

In fact, such a situation may be the result of underestimation of expected earnings while deciding on the amount of capital to be raised or using low capitalization rate for the purpose or by following a conservative dividend policy. Of course, improvement

in earnings can also be the result of cost reduction exercise or high efficiency. Thus, under-capitalization is indicative of a sound financial position and may lead to increase in the market value of company's shares. However, it can encourage competition as high rate of return may attract new entrants in the field. The workers of the company may demand for higher wages and other benefits. When the company earns more profit, the customers may feel that they are being over-charged by the company. So, it is better to take corrective steps like capitalization of profits (issue bonus shares) or splitting up of the shares (a share of \$10 may be converted into five shares of \$2 each). Although under-capitalization is considered a lesser evil than over-capitalization (as the situation can be remedied more quickly) it is better to ensure a fair or proper capitalization.

Effects of Under-capitalisation	Remedies of Under-capitalisation
● Market value of shares goes up since earning are high	● Issue of bonus shares
● Workers may demand higher wages	● Splitting up of shares
● The high rate of earnings may encourage outsiders to start similar business and thus competition is increased.	● Higher earnings attract competition which ultimately reduces earnings. So the market forces also automatically correct the situation of under-capitalisation.

CASE STUDY

CASE STUDY IN FINANCIAL PLANNING

One financial planner met a client and had the following details:

A 38 year old man with a daughter from an earlier marriage (age 11) a son from the present marriage (7 years) a housewife, parents needing support and a mother in law dependent on him. (5 complete dependents, daughter partially dependent – his ex wife is earning well) He had bought a house for \$60 lakhs (market value \$3 crores), doing his own business (financial planner ‘feels’ that the client earns about \$20 lakhs. He has a 45 lakh borrowing on this house. He drives a Toyota Corolla – about 3 months old. He is in a capital intensive business and the planner has no idea about his bank borrowings, but they do carry his personal guarantee. He has all his money in LIC’s endowment plans and believes that the money is safe only in government ‘investments’ like LIC. Does not believe in mutual funds, has dabbled somewhat in equities, but as is to be expected, with terrible results – investments of \$5 lakhs is worth close to zero. Lifestyle expenses (visible to the planner) seems to be costing \$1 -1.5 L a month, but again a guess.

I have not given this case study to ask for a solution, but at the gaps of what the FP told me. The Planner did not know the following details, and to me they were important:

- How much were his household expenses
- What was his income – real one, shown to IT, hidden, ...etc.
- What was the income trend in the business?
- Personal balance sheet
- Personal goals, expenses, spending habits, vacations, ...
- Was his current wife capable of earning or not capable of earning
- Amount of life insurance, premia paid, maturity,....
- Financial personality characteristics – spend thrift, ...etc
- Was he a good businessman or a lucky one? Will his income continue, if yes for how long?
- Personal guarantees given to the bank? Was the house pledged only to the housing loan company or to the bank for a business loan too?

Obviously if I had met the client many more of these questions will emerge...as will further questions based on these answers. This planner just wanted to sell him some mutual funds....and perhaps a pension plan. It is nice to call yourself a financial planner, but please, please, behave like one.

ETHICS

ETHICAL ISSUES FOR FINANCIAL ADVISORS

Honest financial planners can face real dilemmas when trying to do the right thing for their clients. Read on as we explore some common dilemmas investment professionals may face, and help provide guidance on how you can tackle them.

Ethical Issues Today

A generation ago, both the tax code and the financial products and services available were simpler than they are today. For example, if someone wanted to buy stock, a stockbroker would place the trade. If someone needed permanent life coverage, a whole life policy was issued. But now, planners must decide if this traditional approach is better, or whether the client would be better off buying any number of the diverse modern products available. The modern product maze means that every financial planner faces an ethical dilemma when trying to do the right thing for a client.

Ethics for CFPs®

In light of these quandaries, the Certified Financial Planner® Board of Standards has issued a substantial revision and upgrade of the ethical requirements for its certificants, such as the fiduciary requirement of 2007:

- All financial planning services must be accorded the care of a true fiduciary, as opposed to merely acting in the client's best interest. This also constitutes a major step up in terms of responsibility, as fiduciaries have a strict set of rules and guidelines that must be followed at all times. For clients this means that their planners are held to a higher legal standard of care than before.
- The CFP Board breaks down the fiduciary standard of care, highlighting how investment advisors and broker-dealers were held to different standards before: "It is important to recognize that a financial recommendation that is 'suitable' for a client (as legally required for broker-dealers) may or may not be a financial recommendation that is in the client's best interest (as legally required for investment advisers)."

Fees Vs. Commissions

Regardless of what legal or moral standard they are held to, one of the biggest ethical dilemmas planners face is choosing a method of compensation. The methods of compensation for both sales-driven practitioners and planners are often interchangeable, since each can charge either fees or commissions for their services (provided that they are licensed to do so). However, this flexibility can often present a moral dilemma for planners who must choose one method of compensation over another.

A fee-based planner – one who charges clients based on a percentage of their assets – will increase his or her compensation simply by making the client's assets grow. If the planner charges the client a fee of 1% of assets under management, then the annual fee collected from a \$100,000 portfolio will be \$1,000. Therefore, if the planner is able to make the portfolio grow to \$150,000, his or her compensation will increase accordingly. This type of compensation could motivate the planner to employ more aggressive investment strategies than would a traditional commission-based broker.

A commission-based planner, on the other hand, is compensated for each transaction, regardless of portfolio gains or losses. These brokers face the temptation to use transactions as a means of revenue, even if they manage to avoid the technical definition of “churning.” In this sense, each type of compensation presents its own set of ethical issues. Ultimately, planners must be willing to subordinate their own benefit to that of their clients, regardless of what business model is used. Take for example a planner that can work on either an hourly fee or a commission basis.

If the planner meets with a client that has \$2 million earmarked for retirement, then charging by the hour would result in a total fee of perhaps \$5,000 – on the very high end. On the other hand, choosing to charge the client a commission-based fee for investing the \$2 million in a variable annuity could pay as much as a 7% commission, which would earn the planner \$140,000. This extreme variance in compensation could easily sway even the most stalwart planner. The key thing to remember is that you must act in the best interests of your client, not your wallet.

Sales vs. Advice

The boundaries between sales and advice in the financial industry are becoming increasingly blurred, as new platforms and methods of doing business continue to emerge. What this usually boils down to is getting clients to do the right thing for the right reason. Many clients will base their financial decisions on emotions rather than what their planner advises. Suppose a 60-year-old woman has her entire savings of \$100,000 in certificates of deposit (CDs), and is terrified of risking her principal. If she lives for another 25 years, her savings will likely be depleted long before she

dies, since these low-risk investments pay a tiny rate of return that will be offset by inflation over time.

As a planner, you obviously need to get your client to diversify her holdings with a sensible asset allocation, or at least to consider some sort of immediate annuity option. But how far should you go in encouraging her to do this? Is it OK for you to use aggressive, fear-based sales tactics, or even bend the truth a little, in order to help this client? After all, it clearly *is* in her best interest to do this. Besides, if no action is taken, you could be held legally liable for failure to provide adequate advice.

In this case, the definition of ‘fear-based’ sales tactics is also somewhat subjective. If the planner shows the client a graphic illustration revealing how she will be bankrupt in less than 10 years, is that using fear as a tactic, or is it merely a revelation of reality? The argument can be made that it is both at once. Luckily, planners do have help in these types of situations. If a client refuses to take your advice, you can present them with a written disclaimer stating that the client or prospect has refused to follow the recommendations presented by the planner. If your 60-year-old client wants to stick to her CDs and she’s signed this disclaimer, then you are in the clear.

Problems with the System

The fact is that there is no central ethical resource that is available for all types of financial planners. Commission-based brokers can consult their supervisors or compliance departments on certain matters, but they are likely to get ‘corporate’ answers to many of their questions – answers that may allow the planner to create a profitable transaction without incurring liability, but may not address what is truly best for the client.

CFP® practitioners may consult the CFP® Board with ethical questions, and other accredited planners may have ethical codes of conduct to refer to as well. Yet non-credentialed planners are essentially on their own for all practical purposes, as the rules imposed by the regulatory agencies are not designed to address many day-to-day issues that planners face as part of their jobs.

The Bottom Line

Despite the onslaught of legislation and regulations aimed at curbing unethical practices (such as the Sarbanes-Oxley Act of 2002), financial planning in today’s world depends more than ever on understanding a client’s individual situation and objectives, and being willing to do the right thing for them. The correct application of ethics in modern financial planning essentially boils down to having the client understand exactly what they are doing, and why, with full knowledge of the costs and risks involved.

An ethical transaction occurs when a client *truly* understands the ramifications

Financial Management

of the advisor's recommendations, and is willing to go forward, assuming that all pertinent laws and regulations are being obeyed. After all is said and done, ethics can still be viewed as simply knowing what the right thing to do is, and then doing it.

FOCUS ON

THE ADVANTAGES OF FINANCIAL PLANNING

Money managing does not come naturally or easily to everyone. Whether you have little experience with money managing or you are unsure about how to handle certain costs or expenses, a financial planner may be useful. The advantages of financial planning cover many aspects of a person's life -- from budgeting and planning large purchases, to planning for the unexpected and leaving behind an inheritance.

Financial Preventative Care

Financial planners can help you analyze your current finances and point out your strengths and weaknesses. If you are not particularly savvy with managing your own money, you may not realize that some of your spending or financial decisions are causing you to lose money. Additionally, if you receive a large sum of money -- such as from an inheritance -- a financial planner can help you manage the money responsibly, in a way that can help extend its value or increase it through smart investments.

Contingency Planning

The future is uncertain and it is difficult to imagine how you or your family could handle unexpected events, such as a death or an illness. A financial planner can help you analyze potentialities and protect your finances. For example, you could create a power of attorney that springs into effect if you become disabled. This enables someone to make decisions on your behalf when you cannot physically do so.

Funding Large Purchases

College tuition, a new car or a new house are common expenses that require large sums of money. You may not have the money on hand to cover the entire expense. Financial planning can help you determine whether you need short-term financing options -- such as loans -- or if you should set money aside over time and have enough money to cover the cost when the time comes to make the purchase.

Estate Planning

Estate planning involves financial planning. The complexities depend on individual circumstances. For example, financial planning can help you decide how to handle leaving behind an inheritance to minors or structuring your estate plan to protect a beneficiary's inheritance from his creditors.

SUMMARY

- Financial planning is a process of setting objectives, assessing assets and resources, estimating future financial needs, and making plans to achieve monetary goals.
- Financial planning plays a starring role in helping individuals get the most out of their money. Careful planning can help individuals and couples set priorities and work steadily towards long-term goals.
- The decision to hire a financial planner may depend on many things, including the financial worth of the individual, his or her goals for the future, and the amount of research the individual is willing to perform.
- Financial planning is specific to the individual, as no two individuals are identical nor their finances. Every individual has varied sets of background, income, expenses, risk taking ability, future outlook, assets, needs, financial situation, knowledge, responsibilities, etc.
- The prevailing economic conditions at the national level and international level will influence a decision about financial plan. These conditions should be considered before taking any decision about sources of funds.
- Financial planning is beneficial to recognize the cost of production (material, labor, factory overhead, etc.), cost of administration (salary, legal expenses, office overhead, etc.) and cost of sales (advertisement, marketing and other promotional expenses).
- Financial planning is a model demonstrating comprehensive and forecasted analysis of profitability for the particular business in a specific market condition, with a pre-determined projected financial-plan. A forecasted profitability plan is required to estimate the course of action.
- Financial planning is required to manage the funds of the investors and to conduct the activities of the business in the interest of the organization. Funds are the liquid assets of the company.

KNOWLEDGE CHECK

1. **A budget is not:**
 - a. a forecast
 - b. a qualitative statement
 - c. a plan
 - d. a part of the strategic management process
2. **A forecast is not:**
 - a. based on extrapolation of past data
 - b. a budget
 - c. based on expert opinion
 - d. a prediction of future events
3. **Strategic plans are:**
 - a. long-term
 - b. short-term
 - c. forecasts
 - d. budgets
4. **Important aspects of operationalizing strategy for budget purposes do not include:**
 - a. identification of required resources
 - b. implementation of appropriate control systems
 - c. development of appropriate performance criteria
 - d. calculating depreciation and amortization
5. **The assumptions underlying a company's financial planning model do not include:**
 - a. levels of directors' remuneration
 - b. levels of working capital
 - c. levels of investment

- d. levels of sales growth
- 6. **The broad purposes of budgeting do not include:**
 - a. planning and control
 - b. co-ordination
 - c. development of overseas markets
 - d. communication
- 7. **The strategic plan of a business may not be most successful if:**
 - a. there is full communication and participation
 - b. it is based on realistic levels of performance
 - c. managers are given demanding targets
 - d. assumptions are made available to all managers
- 8. **Strategic planning is not the process of:**
 - a. deciding on organizational objectives
 - b. deciding on policies regarding resources
 - c. deciding on levels of pay
 - d. deciding on resources required to meet objectives
- 9. **The purpose of strategic planning is not to consider:**
 - a. expected growth
 - b. methods of tax evasion
 - c. long-term financing
 - d. dividend policy
- 10. **Which of the following is not one of perspectives within the balanced scorecard:**
 - a. learning and growth perspective
 - b. customer perspective
 - c. taxation perspective
 - d. internal business process perspective

REVIEW QUESTIONS

1. What do you understand by financial planning?
2. Write the essentials of a sound financial plan.
3. Define the importance and value of financial planning.
4. Describe the six-step process to financial planning.
5. What are the different type of financing sources?

CRITICAL QUESTION

1. Explain the rules of financial planning. Also define the crucial factors affecting financial planning.

Check Your Result

1. (a)	2. (b)	3. (a)	4. (d)	5. (a)
6. (c)	7. (c)	8. (c)	9. (b)	10. (c)

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3

FINANCIAL STATEMENT ANALYSIS

“People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.”

—Adam Smith

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Explain the basics analysis of financial statements
- Describe the techniques of financial statement analysis



KEY IDEAS

1. Financial statement analysis (or financial analysis) is the process of reviewing and analyzing a company's financial statements to make better economic decisions. These statements include the income statement, balance sheet, statement of cash flows, and a statement of changes in equity.
2. Financial statement analysis is a method or process involving specific techniques for evaluating risks, performance, financial health, and future prospects of an organization.
3. Horizontal analysis compares financial information over time, typically from past quarters or years. Horizontal analysis is performed by comparing financial data from a past statement, such as the income statement.
4. Financial ratios are very powerful tools to perform some quick analysis of financial statements. There are four main categories of ratios: liquidity ratios, profitability ratios, activity ratios and leverage ratios.

INTRODUCTION

A financial statement is an official document of the firm, which explores the entire financial information of the firm. The main aim of the financial statement is to provide information and understand the financial aspects of the firm. Hence, preparation of the financial statement is important as much as the financial decisions. Financial statement analysis can be referred as a process of understanding the risk and profitability



Citation: <https://track.com.eg/wp-content/uploads/2017/01/AAEAAQAAAAAAAAAYNAAAAJGEwOTExZDg4LWlxZmYtNDdjNy1iOGEzLWlxZDI5MDk0OTYwNw.jpg>

of a company by analyzing reported financial info, especially annual and quarterly reports. Putting another way, financial statement analysis is a study about accounting ratios among various items included in the balance sheet. These ratios include asset utilization ratios, profitability ratios, leverage ratios, liquidity ratios, and valuation ratios. Moreover, financial statement analysis is a quantifying method for determining the past, current, and prospective performance of a company.

Financial analysis is the process of examining a company's performance in the context of its industry and economic environment in order to arrive at a decision or recommendation. Often, the decisions and recommendations addressed by financial analysts pertain to providing capital to companies—specifically, whether to invest in the company's debt or equity securities and at what price. An investor in debt securities is concerned about the company's ability to pay interest and to repay the principal lent. An investor in equity securities is an owner with a residual interest in the company and is concerned about the company's ability to pay dividends and the likelihood that its share price will increase. Overall, a central focus of financial analysis is evaluating the company's ability to earn a return on its capital that is at least equal to the cost of that capital, to profitably grow its operations, and to generate enough cash to meet obligations and pursue opportunities.



<https://www.youtube.com/watch?v=c8HxuTv-abo>

BASICS ANALYSIS OF FINANCIAL STATEMENTS

Financial statement, any report of the financial condition or of the financial results of the operations of a business, a government, or other organization. The term is most often used in a more limited sense in trade and financial circles to refer to the balance sheet, statement of income, and statement of retained earnings of a business. The balance sheet shows, as of a certain date, the amount and kinds of assets (properties) and liabilities (debts) and the owners' investment (excess of assets over liabilities). The balance sheet indicates the liquidity of the concern and its probable solvency. Liquidity is measured by the readiness with which assets may be converted into cash. Solvency is measured by the firm's ability to meet its debts when due.

Comparative balance sheets showing the financial condition of a business for two or more years reveal financial tendencies, changes in response to varying business conditions, and policies on such matters as debt repayment and expansion of the ownership investment by retained earnings. The statement of income or earnings statement summarizes those transactions which have brought gain or loss to the owners during a period of time, usually a year, between two successive balance sheets. Accountants ordinarily divide this statement into a statement of income (or profit-and-loss statement) and a statement of retained earnings (or earned surplus). The latter includes items that are not strictly profit or loss, such as dividends, arbitrary reductions in the valuation of fixed property, or items that relate to the earnings of an earlier period, such as the revision of the tax liability of an earlier year. Some accountants regard it as improper to place these latter adjustments of prior years' gains or losses in this surplus section lest an unskillful reader overlook them in studying the earnings over a period of years. The preference is to show such adjustments in the regular income statement suitably segregated.

Stock is a general term used to describe the ownership certificates of any company.

Earnings statements are useful in portraying the elements of profitability when details are given on sales or gross revenues, cost of goods sold, and certain expenses such as depreciation, maintenance, taxes, interest, and rents. Good form calls for

the separation of income and expenses derived from the main operations, such as the trading activities of a merchant, from similar data related to other activities, such as interest and dividends from investments or other non-operating income. Extraordinary and nonrecurring gains and losses together with any related income taxes should be separately stated. Where the total earnings are summed up in the single figure of “earnings per share of **stock**,” a figure that excludes extraordinary items is often preferred. Such a figure is a representative or normal measure of earnings. Good practice requires the reporting of figures that both include and exclude such items. Whether a particular unusual item is likely to recur in the future may depend upon whether a short- or long-run point of view is taken.



Citation: <https://www.uclaextension.edu/sites/default/files/2017-10/financial-statement-analysis-mgmtx432-3.jpg>

The earnings statement is ostensibly a mere record of the past. However, as in other fields, the reader projects this historical experience in judging the probable future. Debates over proper form often hinge upon the debaters’ ideas as to the probable way in which the reader is likely to think or react. Because statements are read for a variety of purposes, no single form can satisfy all persons. Adequate disclosure of material details enables informed and competent persons to derive the kinds of information that will serve their various needs. The past record of earnings has the greatest utility in gauging the future where the business offers goods or services that are bought frequently and habitually. Demand and earnings fluctuate most where technology changes, style alters frequently, raw materials vary greatly in cost, or durability or

luxury character causes irregular buying. Mergers, the acquisition or sale of properties, and the development of new products also limit the utility of using past earnings as a measure of future performance.

Meaning of Analysis of Financial Statements

The process of critical evaluation of the financial information contained in the financial statements in order to understand and make decisions regarding the operations of the firm is called 'Financial Statement Analysis'. It is basically a study of relationship among various financial facts and figures as given in a set of financial statements, and the interpretation thereof to gain an insight into the profitability and operational efficiency of the firm to assess its financial health and future prospects.

The term 'financial analysis' includes both 'analysis and interpretation'. The term analysis means simplification of financial data by methodical classification given in the financial statements. Interpretation means explaining the meaning and significance of the data. These two are complimentary to each other. Analysis is useless without interpretation, and interpretation without analysis is difficult or even impossible.

Financial statement analysis is a judgmental process which aims to estimate current and past financial positions and the results of the operation of an enterprise, with primary objective of determining the best possible estimates and predictions about the future conditions. It essentially involves regrouping and analysis of information provided by financial statements to establish relationships and throw light on the points of strengths and weaknesses of a business enterprise, which can be useful in decision-making involving comparison with other firms (cross sectional analysis) and with firms' own performance, over a time period (time series analysis).

Financial Statement generally consists of three basic statements the income statement, the profits and loss account and the Balance sheet. The statement of the earnings and sources and uses of funds statements financial statement taken to gather, give the financial statement, taken to gather, give accounting picture at the first operation and financial position. The package of finance statement includes such schedules as the relating to fixed assets, long term investment long term debts. Accrued liabilities. Cost of goods manufactured, selling expenses and administrative and general expenses. These schedules mainly supplement the information contained in the financial statement and are considered essential for the purpose at analysis. In addition, explanatory notes are also given as an integral part of financial statements when the information given in the financial statement and schedules are inadequate. The inventory valuation and depreciation, description of contingent liabilities etc.

Significance of Analysis of Financial Statements

Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationships between the various items of the balance sheet and the statement of profit and loss. Financial analysis can be undertaken by management of the firm, or by parties outside the firm, viz., owners, trade creditors, lenders, investors, labor unions, analysts and others. The nature of analysis will differ depending on the purpose of the analyst. A technique frequently used by an analyst need not necessarily serve the purpose of other analysts because of the difference in the interests of the analysts. Financial analysis is useful and significant to different users in the following ways:

- **Finance manager:** Financial analysis focusses on the facts and relationships related to managerial performance, corporate efficiency, financial strengths and weaknesses and creditworthiness of the company. A finance manager must be well-equipped with the different tools of analysis to make rational decisions for the firm. The tools for analysis help in studying accounting data so as to determine the continuity of the operating policies, investment value of the business, credit ratings and testing the efficiency of operations. The techniques are equally important in the area of financial control, enabling the finance manager to make constant reviews of the actual financial operations of the firm to analyse the causes of major deviations, which may help in corrective action wherever indicated.
- **Top management:** The importance of financial analysis is not limited to the finance manager alone. It has a broad scope which includes top management in general and other functional managers. Management of the firm would be interested in every aspect of the financial analysis. It is their overall responsibility to see that the resources of the firm are used most efficiently and that the firm's financial condition is sound. Financial analysis helps the management in measuring the success of the company's operations, appraising the individual's performance and evaluating the system of internal control.
- **Trade payables:** Trade payables, through an analysis of financial statements, appraises not only the ability of the company to meet its short-term obligations, but also judges the probability of its continued ability to meet all its financial obligations in future. Trade payables are particularly interested in the firm's ability to meet their claims over a very short period of time. Their analysis will, therefore, evaluate the firm's liquidity position.
- **Lenders:** Suppliers of long-term debt are concerned with the firm's long-term solvency and survival. They analyse the firm's profitability over a period of time, its ability to generate cash, to be able to pay interest and repay the principal and the relationship between various sources of funds (capital

structure relationships). Long-term lenders analyses the historical financial statements to assess its future solvency and profitability.

- **Investors:** Investors, who have invested their money in the firm's shares, are interested about the firm's earnings. As such, they concentrate on the analysis of the firm's present and future profitability. They are also interested in the firm's capital structure to ascertain its influences on firm's earning and risk. They also evaluate the efficiency of the management and determine whether a change is needed or not. However, in some large companies, the shareholders' interest is limited to decide whether to buy, sell or hold the shares.
- **Labor unions:** Labor unions analyses the financial statements to assess whether it can presently afford a wage increase and whether it can absorb a wage increase through increased productivity or by raising the prices.
- **Others:** The economists, researchers, etc., analyses the financial statements to study the present business and economic conditions. The government agencies need it for price regulations, taxation and other similar purposes.

Objectives of Analysis of Financial Statements

Analysis of financial statements reveals important facts concerning managerial performance and the efficiency of the firm. Broadly speaking, the objectives of the analysis are to apprehend the information contained in financial statements with a view to know the weaknesses and strengths of the firm and to make a forecast about the future prospects of the firm thereby, enabling the analysts to take decisions regarding the operation of, and further investment in the firm. To be more specific, the analysis is undertaken to serve the following purposes (objectives):

- To assess the current profitability and operational efficiency of the firm as a whole as well as its different departments so as to judge the financial health of the firm.
- To ascertain the relative importance of different components of the financial position of the firm.
- To identify the reasons for change in the profitability/financial position of the firm.
- To judge the ability of the firm to repay its debt and assessing the short-term as well as the long-term liquidity position of the firm.

Through the analysis of financial statements of various firms, an economist can judge the extent of concentration of economic power and pitfalls in the financial policies pursued. The analysis also provides the basis for many governmental actions relating to licensing, controls, fixing of prices, ceiling on profits, dividend freeze, tax subsidy and other concessions to the corporate sector.



Citation: <http://www.evauditinvest.ro/wp-content/uploads/2013/09/financial-graphs-and-charts-36414004.jpg>

Users of Statements

The more important users of financial statements are: (1) short-term creditors; (2) investors; (3) business management; and (4) government agencies. Commercial banks who extend short-term credit may rely on a prospective debtor's before record of bill payment rather than upon precise financial information. Experience has shown, however, that such credit can be extended more freely and with less risk, especially to small businesses, when statements are available. Attention of the short-term creditor centers on the balance sheet, especially on the current assets, consisting of cash and liquid investments, stocks of merchandise (inventories), and amounts owed by customers (accounts receivable) as they relate to short-term debts.

Investors in bonds or stocks tend to place primary emphasis upon the earnings statements and less upon the balance sheet, save as the latter suggests risk because of unliquidity and insolvency. When commercial banks extend term loans that are to be repaid systematically over a period of years, they have an interest in the statement of income because they depend for repayment more upon future earnings and less upon existing current assets. Ability to repay debt depends primarily upon cash flow from operations. This term includes retained earnings and depreciation expense. Retained earnings represent the excess of cash inflow from revenues, less outflow

from expenses and dividend distributions. Depreciation is added because, although an expense, it represents no cash outflow during the accounting period but a write down of assets previously acquired. Sometimes a statement of the sources and uses of funds is presented. Sources include cash flow from operations and amounts realized from the sale of assets and of the company's securities; uses or applications include the reduction of debt or other obligations, the purchase of fixed assets, and additions to working capital.

A widening ownership of large business corporations makes fuller disclosure through financial statements a natural development. Such statements may have little utility for many individuals but are essential to investment advisers and financial institutions whose appraisals largely determine market opinion. Business management finds detailed statements valuable. Comparison with the statements of other members of the industry is used to discover conformity to customary practice and to study relative operating achievement.

Standardized financial statements are the essential basis for many phases of governmental regulation and the taxation of business. When prices are regulated, especially as for public utilities, financial statements disclose the level of earnings and how they conform to the standard set by policy. Statements permit the study of a corporation's finances to determine the suitability of its securities for acquisition by regulated investment institutions, such as insurance companies and banks. When securities are widely owned by individuals who are not in a position to enforce adequate statement information, the government may then set up requirements for the disclosure of material financial information.

Differences Related To Function

Figures compiled under rules for meeting one need may be inadequate to meet other needs. Merchandise inventories shown in a balance sheet at a very low cost figure of the distant past will not tell a banker how valuable they are currently for paying debts. Regulatory bodies when dealing with a financial institution like a bank may look with favor on an understatement of asset values that increases the margin of safety of that institution in a crisis. A stockholder, however, who wishes to determine share price, would prefer fuller information on current values. Income tax regulations may specify certain maximum allowances for depreciation expense, but business management may find that rapid technological change justifies larger allowances. Or, management may

elect the highest permissible depreciation rates for income tax purposes when less would appear adequate, lest possible tax savings for shareholders be lost. Considerable changes in the price level create many problems for all classes who use conventionally prepared statements. Radical accounting adjustments were suggested by German accountants in the price inflation after World War I and by some accountants in the U.S. after World War II.

Accounting Terminology

The conditions prerequisite to the interpretation of financial statements are an understanding (1) of the information required by the particular user, (2) of the terminology, and (3) of the rules or conventions employed by accountants in their preparation of financial statements. The needs of the various groups who use statements have been suggested. As for terminology, the two areas baffling for the ordinary reader but essential to the understanding of the balance sheet are the items that state the ownership interest and the reserves.

The ownership interest of a proprietorship or partnership may be stated in amounts belonging to the one or several owners or merely as the net worth. The total amount is the excess of the assets over the debts of the concern. When added to the debts, the sum equals the assets by definition. Custom places the ownership interest on the side of the balance sheet headed liabilities or, more correctly, liabilities and owners' capital. The latter heading recognizes the legal difference between the creditors, who have claims to fixed sums of money as of certain dates, and the owners, who are the residual claimants to assets and income.

In a corporation's balance sheet, the interest of the owner-stockholders should be broken down as between paid-in investment and subsequent accretions from earnings left in the business. The former appear as so much capital stock, often at an arbitrary par or stated value, and any excess as excess paid in by stockholders, paid-in surplus, or capital surplus. The other portion of the ownership equity may appear as earnings retained in the business, profit and loss, or earned surplus. Recognition that this amount is merely a balance of value and represents the residual claim of the owners, which may be invested in non-liquid assets, should prevent the not unusual misconception that surplus is a pot of money readily available for dividends or debt payment.



Citation: <https://i.ytimg.com/vi/O4fvsR73jNg/maxresdefault.jpg>

Valuation Reserves

Instead of merely showing such an asset as plant and machinery at its net book value, it is customary to show its original cost with a separately stated amount of allowances for depreciation or, more confusingly, a reserve for depreciation. Similarly, allowances for losses on customers' debts to the business may show as a deduction either for allowances for bad debt losses or a reserve for bad debts. In the late 20th century accountants began using the term "allowance" rather than "reserve" to make clear that these amounts are estimates of loss of value and not cash or funds.

Liability Reserves

Occasionally a liability, especially where the amount is uncertain, appears as a "reserve." Thus, income tax liability may be called reserve for income taxes, although better practice is to label the item "estimated liability for" or "accrued" income taxes.

Appropriated Surplus

Some accountants who wish to show that retained earnings are not available for dividend distributions transfer a portion of such surplus to a "surplus reserve," such as a reserve for contingencies, a sinking fund reserve, or merely general reserves.

Others prefer to show this point by merely stating these amounts as appropriated surplus: for contingencies, for bond retirements, or for plant expansion. Still others regard both forms as likely to mislead by implying that all of the remainder of the retained earnings account is available for dividend payments. Actual availability can be determined only by examining (1) the remainder of the balance sheet to see whether cash or other liquid funds exist in excess of what is required to satisfy creditors; (2) reported plans for the future that will use up existing cash; and (3) earnings prospects that will provide cash necessary to pay dividends. Originally, these “reserves” were sometimes grouped in the balance sheet between the liabilities and the ownership equity. As time passed, they were more commonly placed with the asset, liability, or ownership accounts to which they were more closely related. An even later tendency was to abandon the term “reserve” for more accurately descriptive account titles.

Accounting Rules

The significance and limitations of financial statements arise in part from the rules or principles of accounting which determine their construction. These rules grew from customs found most generally useful in trade and finance. One basic principle is that assets should reflect cost rather than current market value in order to avoid showing unrealized profits from appreciation. This rule is modified by allowances for value losses where some systematic basis for estimate exists, as in the case of depreciation of machines and buildings, bad debt losses, and the depletion of oil wells and mines. This cost rule is commonly suspended when current assets have a market value below cost at the date of the balance sheet. The current assets are those assets that turn into cash in the course of ordinary operation within a year (longer in a few industries) and typically include cash, marketable securities, customers' indebtedness, and inventories. Marketable securities and inventories are commonly valued at whichever is lower, cost or market, partly as a matter of conservatism, which is itself almost an accounting principle. This practice is also a matter of recognizing a value loss that reduces current debt-paying power. The measurement of this ability is a central object of statement analysis. Fixed assets, such as plant or long-term security investments not likely to be sold to meet debt, are commonly shown at cost and ignore market value fluctuations on the assumption that such fluctuations are not important to the “going concern.” Appraisal and revaluation of the fixed assets are not common practice.

Many special accounting rules arise from trade customs, governmental regulations, and tax laws. They often apply only to the statements of special kinds of businesses, such as manufacturing, merchandising, railroads, public utilities, commercial banks, life, fire, and casualty insurance, and holding companies. Because practice varies greatly, typical forms and terminology are not consistent in these various fields.

Financial Statement Analysis

Balance sheets and earnings statements may be analyzed comparatively or internally. In comparative analysis, changes in successive balance sheets or earnings statements—yearly, quarterly, or monthly—are studied for tendencies and trends. These changes may reflect long-term growth or decline of the particular business or the industry of which it is a part, or they may represent cyclical, seasonal, or special fortuitous factors. Correct understanding of the nature of the influences at work is as important as the facts of change.

Internal analysis examines the relationships or ratios between various items in the statements. The simplest devices are the percentage balance sheet, which compares each of the assets and liabilities as a percent of total assets, and the percentage income statement, where the various operating income and expense items are shown as percentages of the gross revenues or sales. Ratios are studied to discover probable liquidity or solvency and profitability or efficiency. Two common liquidity tests are the current and the quick ratios. The former is the ratio of current assets to current liabilities; the latter is the ratio of cash and equivalent plus customers' debts (receivables) to the current liabilities. Comparisons of annual sales volume to the customers' debts and to inventories give an idea as to their liquidity and also how efficiently the capital invested in those forms is being used to produce profits. Comparisons of indebtedness to the owners' investment indicates something of the risk of insolvency that is being assumed. Comparisons of the cost of goods sold and the various expenses to revenues may be studied from year to year and between companies in the industry to ascertain relative efficiency and profitability. The amount of earnings relative to the investment of creditors and owners provides another measure of profitability, which, however, requires greater care in interpretation because of changing prices and the failure of the balance sheet to reflect current property values.

Although financial statements are most important to those immediately concerned with the financial fortunes of the particular business, they are read and used by others. They are used for economic analysis; for studies of business conditions; for shaping political and legislative policies; for governmental regulation; and for background information for settling labor disputes. Misinterpretation is easy here as it is in all forms of statistical abstraction. Price level changes are an especially disturbing factor. In spite of such limitations, financial statements perform a useful economic service by making possible a more intelligent assumption of business risks; directing capital into more economic channels; and improving the quality of business management and of competition. They also serve a wider social purpose in providing one more kind of information useful in evaluating political and social policies.



Citation: <https://www.growthforce.com/hubfs/Cash%20Flow%20-%20how%20Tesla%20does%20it.jpg>

Types of Financial Statement Analysis

Financial Statements represent a formal record of the financial activities of an entity. These are written reports that quantify the financial strength, performance and liquidity of a company. Financial Statements reflect the financial effects of business transactions and events on the entity.

Financial analysis is not an exact science for business owners. Understanding the different types of financial analysis is crucial in making informed business decisions. People who analyze the financial statements of a company include company executives, competitors, creditors, managers and potential investors. There are broadly three types of financial statements viz.

- Balance Sheet
- Income Statement
- Cash Flow Statement

Part of the world considers the statement of stockholders equity as another financial statement. In the true sense, explanatory notes in the annual reports should also

be called as financial statements. These footnotes or explanatory notes to financial statements speak about inventory method contingent liabilities and explanation to all the important line items of quantitative financial statements. Let's try to understand each type of financial statement in little depth.

Table 1: Types of financial statements

Statements	Definition	Important Terms
Balance Sheet	It is a tabular sheet of balances of assets, liabilities, and equity.	Current Assets Non-Current Assets, Property, Plant, and Equipment, Long-term Liabilities, Common Stock, Preferred Stock and Retained Earnings etc.
Income Statement	It is a statement of calculation of the income of a particular period showing Net Sales and all types of expenses.	Sales, Operating Cost, Depreciation and Amortization, Interest Cost, Taxes, Preferred Dividends and Net Income.
Statement of Cash Flows	A cash flow statement is simply a statement of cash generation and its use categorized under different activities.	Operating Activities, Investing Activities, and Financing Activities.
Statement of Shareholder's Equity	It is a statement showing the capital investment by stockholders and the retained earnings of the company.	Common Stock, Retained Earnings
Footnotes to Financial Statements	All other information in the annual report other than quantitative statements like above are footnotes.	Inventory valuation method Contingent liability, Disclosures, etc.

Balance Sheet

The balance sheet reports the assets of a company along with the ownership properties associated with those assets. In general, an asset can be financed through debt or owned by the company. Therefore, the total dollar amount of assets equals the total dollar amount of liabilities and owner's equity. In addition, the asset and liability section break out accounts based on longevity of the balances. For instance, long-term debt is reported on a separate line than current debt. The balance sheet is most useful in short periods of time – it is the only financial statement based on a particular moment. While other financial statements like the income statement aggregate sales throughout a period, the balance sheet only reflects the current balance – such as how much cash is in the bank at the date of the report. This makes the report useful for liquidity and solvency analysis.

As the term balance sheet suggests, it is a tabular sheet of balances of assets, liabilities, and equity. Assets are normally classified as current assets and property plant and equipment. Liabilities are generally further classified into current and long-term liabilities. Equities are common stock, preferred stock and retained earnings all shown separately. There is a great significance of each and every line item on a balance sheet.

As we just noted that the balance sheet is nothing but a set of balances. Balances can change every day. Therefore, a balance sheet is presented at the end of a particular date. The date for presenting balance sheet for the annual report is the last date of the financial year. In the US it is 31st December every year. Companies show balances of last year as well as the balances of last to last year for the sake of visible comparison. For example, if the balance of equity at the end of 2018 is 1,000 million and 900 million at the end of 2017, the change in the balance of equity by 100 million is clearly visible. The analysts will understand and interpret this change through their skill of financial analysis.

Income Statement

The income statement reports the revenues and expenses of an organization. The expenses are grouped and classified according to the type of cost. For example, product expenses relate to the cost to produce the good, selling expenses relate to the costs of customer outreach and product delivery, and administrative costs correlate to general company expenses. After expenses are deducted from revenues, net income is reported at the bottom of the financial statement. This income figure is used as an overall summary regarding the profitability of the entity. The income statement is useful to track expenses, especially when the information is compared to before years. In addition, the income statement is typically aligned with a budget to analyze what has been spent to what the spending plan is for the period.

Unlike balance sheet income statements are presented for a period and not as on a date. Here also, as the income statement suggests, it is a statement which shows the calculation of the income of a particular period. The main components of an income statement are net sales, operating cost, depreciation and amortization, interest cost, taxes, preferred dividends, and net income. All the components deducted from net sales to arrive at net income. After deduction of every type of cost, you arrive at a different interpretation of income which is expressed as below:

- Earnings before Interest Tax Depreciation and Amortization (EBITDA)
- Earnings before Interest and Taxes (EBIT)
- Net Income before Preferred Dividends
- Net Income (NI)

Statement of Cash Flows

All the while we have heard the importance of net cash flows in the calculation of the fundamental or intrinsic value of businesses. Cash generation, therefore, has got more value than income reported in the financial statements. It is simply because the real source of value creation is cash and not Income reported on the income statement.

A cash flow statement is simply a statement of cash generation and its use by different activities categorized under three different broad activities i.e.

- Operating Activities,
- Investing Activities, and
- Financing Activities.

There are many factors that make net income totally different from cash balance and they are:

- Noncash adjustment to net income
- Changes in working capital
- Investment
- Capital Inflow and Outflow
- Dividend Payment

Statement of Stockholders Equity

It is a statement showing the capital investment by stockholders and the retained earnings of the company. Like balance sheet, statement of stockholders equity is also a statement presented as on a particular date. This date is commonly 31st December in the US. The two main parts of this statement common stock and retained earnings and the total of both make it to total equity.

Finally, the statement of changes in shareholder equity revolves around the ownership stake in the company. For a small business, this statement will not reflect many changes, as there will likely be one or minimal owners. Larger companies experience material swings in net income, dividends reported, changes in other comprehensive income, retained earnings, and private equity issuances. Investors use this information to see what part of the company is being financed by capital and earnings as opposed to debt.

Footnotes to Financial Statements

You may consider footnotes as one of the types of financial statements or additional information to supplement financial statements. It will be misleading for investors if they do not understand the financial statements in their true sense. Footnotes help in clarifying how financial statements are prepared. They provide information about inventory valuation method, contingent liability etc. They also provide with the disclosures with respect to compliance with Standardized Accounting Principles. In the US, Generally Accepted Accounting Principles (GAAP) is followed and IFRS is the International Standard for Reporting.

Importance of Accurate Financial Statements for a Business

The importance of financial statements lies in their utility to satisfy the varied interest of different categories of parties such as management, creditors, public, etc. Financial statements are crucial for the smooth operations of an organization. To understand what is meant by financial statements, in-depth understanding of the economic activity of any business is of paramount importance. Financial statements are prepared after the data is collected from the organization's accounting database.

For any business and for the people who run it, the importance of accurate financial statements cannot be underestimated. Some of the most important financial statements that are imperative for an organization of any scale are: Income Statement, Balance Sheet, Statement of Stockholders' Equity, Cash Flow Statement and Statement of Comprehensive Income. The numbers revealed through these financial statements play an immense role in making decisions, planning strategies, determining success, estimating failures, and telling the world the story of the company.

- ***Financial Transparency:*** Even the smallest numbers in a balance sheet can have a huge impact on the business. Assets never have the same value that they did when they were first purchased. A percentage has to be deducted from their value for depreciation. A company might report a certain number as revenue earned. But how much of it is actual cash and how much of it is accounts receivable has to be accurately stated. Numbers like Profit before Tax, Profit after Tax, and Profit after Interest, Depreciation and Tax are all important numbers that tell shareholders and management a lot.

- **Evaluate Tax Liability:** Corporate tax rates are quite high. When companies make a lot of profit, the taxes they have to pay are equally high. The owners often get astonished at how little they have left once they have paid taxes to the government. Can they reduce their tax burden? If yes, then they will need the most accurate financial numbers possible. Otherwise, all their resources could be depleted in a very short time. Conversely, for the government, accurate financial statements are essential because many firms fudge their reports only to avoid paying tax.
- **Mitigate Errors:** Accurate financial statements are also essential to catch costly mistakes or internal wrongdoing early on in the process. If any illegal activity is taking place, there is no better way to catch it than through discrepancies in the numbers. If an error has been made, reconciliation activities can find them. That is why companies spend a lot of time on reconciling their books of accounts and checking each entry so that they can find if anyone has tampered with any part of the business or an accounting error has been made. Investment banking especially has been prone to many accounting misdeeds over the years to cover huge trading losses. The inefficiency of the financial reporting systems allowed those losses to be hidden. That is why regulators have started asking banks and other trading firms to pay more attention to their internal accounting methods.
- **Build Trust:** More than anything else, accurate financial statements induce trust in the company. Investors need a sign that a company is doing well and they can put their hard earned money in its business. It is all very well if the balance sheet shows a profit. But there have been times when the balance sheet of many companies showed a profit, only to be found later that they were actually hiding losses. Large-scale companies like Enron and WorldCom and successful accounting firms like Arthur Andersen had to be closed because of their role in fudging financial statements. After experiences like that, it is little wonder then that the world is more concerned about accurate financial statements than ever before. Governments have made accounting and compliance rules more stringent, so that companies do not feel tempted to misreport their financial numbers.
- **Improved Payment Cycles:** In order to optimize the Accounts Payable and Accounts Receivable cycles, accuracy of financial statements plays a key role. Other outgoing payments include salaries and daily wages that need to be paid (payroll), dividends need to be given to the shareholders, inventory needs to be managed, and creditors need to be paid. All this cannot be done unless the numbers are in order. If a loan is overdue then the company needs to know how much interest has to be paid or received. Mathematical calculations can only be done with the correct figures.

- ***Better Decision Making, Planning and Forecasting:*** Analyzing financial statements is crucial when decisions are to be made. A finance manager would look at the value of the assets that he currently holds and decide if he can afford to purchase more. When the value of assets is severely depreciated, questions would arise if they need to be sold off.

A company needs more funds to expand its business; the accountant would look at the debts on the balance sheet, the shareholders capital, and other loans they have taken and decide which type of financing they can afford. When the time comes for the company to pay dividend, the CFO would look at the profits that have been made, the debts that need to be paid off, the provisions made for various reserves and decide what the quantum of dividend can be.

Financial statements open a window for educated decision-making and strategic planning. The working capital statements, fund flow statements, cash flow statements, and trading account all have to be consulted every day for evaluating how much money the company is making, how much money they need, the reserves that they need to set aside, and how they propose to increase sales and boost financing. The above-mentioned points emphasize why it is imperative that companies strive to maintain the accuracy of their financial statements. Following GAAP or other applicable accounting standards to generate these statements is a critical factor in ensuring they present the actual financial picture of the business to management and external stakeholders.



<https://www.youtube.com/watch?v=mhmaHayMha8>

TECHNIQUES OF FINANCIAL STATEMENT ANALYSIS

Financial statements are essential tools used to analyze a company's performance. Management utilizes several techniques to determine a company's financial condition and make decisions regarding improvements. The body of information describing even the smallest firm is enormous, spanning the company's internal operations and its relations with the outside world. To be useful this information must be organized into an understandable, coherent and sufficiently limited set of data. Financial statement analysis can be very helpful in this respect because it highlights the performance of the business.

The purpose of financial analysis is to diagnose the current and past financial condition of a firm and to give some clues about its future condition.

Eugene F. Brigham opines that "from an investor's standpoint predicting the future is what financial statement analysis is all about; from management's standpoint financial statement analysis is useful both as a way to anticipate future conditions and more important as a starting point for planning actions that will influence the future course of events.

Analysis of financial statements is an exercise in the re-arrangement of complex accounting reports into simplified information. The analysis and interpretation is essential to bring out the mystery behind the figures in financial statements.

Devices Used In Analyzing Financial Statement

Various methods are used to study the relationship between different statements. An effort is made to use those devices which clearly analyses the financial position of the enterprise. The most commonly used techniques of financial analysis are as follows:

- **Comparative Statements:** These are the statements showing the profitability and financial position of a firm for different periods of time in a comparative form to give an idea about the position of two or more periods. It usually applies to the two important financial statements, namely, balance sheet and statement of profit and loss prepared in a comparative form. The financial data will be comparative only when same accounting principles are used in preparing these statements. If this is not the case, the deviation in the use of accounting principles should be mentioned as a footnote. Comparative figures indicate the trend and direction of financial position and operating results. This analysis is also known as 'horizontal analysis'.
- **Common Size Statements:** These are the statements which indicate the relationship of different items of a financial statement with a common item by expressing each item as a percentage of that common item. The percentage thus calculated can be easily compared with the results of corresponding percentages of the before year or of some other firms, as the numbers are brought to common base. Such statements also allow an analyst to compare the operating and financing characteristics of two companies of different sizes in the same industry. Thus, common size statements are useful, both, in intra-firm comparisons over different years and also in making inter-firm comparisons for the same year or for several years. This analysis is also known as 'Vertical analysis'.
- **Trend Analysis:** It is a technique of studying the operational results and financial position over a series of years. Using the before years' data of a business enterprise, trend analysis can be done to observe the percentage changes over time in the selected data. The trend percentage is the percentage relationship, in which each item of different years bear to the same item in the base year. Trend analysis is important because, with its long run view, it may point to basic changes in the nature of the business. By looking at a trend in a particular ratio, one may find whether the ratio is falling, rising or remaining relatively constant. From this observation, a problem is detected or the sign of good or poor management is detected.
- **Ratio Analysis:** It describes the significant relationship which exists between various items of a balance sheet and a statement of profit and loss of a firm. As a technique of financial analysis, accounting ratios measure the comparative significance of the individual items of the income and position statements. It is possible to assess the profitability, solvency and efficiency of an enterprise through the technique of ratio analysis.
- **Cash Flow Analysis:** It refers to the analysis of actual movement of cash into and out of an organization. The flow of cash into the business is called as cash inflow or positive cash flow and the flow of cash out of the firm is called as cash outflow or a negative cash flow. The difference between the inflow

and outflow of cash is the net cash flow. Cash flow statement is prepared to project the manner in which the cash has been received and has been utilized during an accounting year as it shows the sources of cash receipts and also the purposes for which payments are made. Thus, it summarizes the causes for the changes in cash position of a business enterprise between dates of two balance sheets.

In this section, we shall have a brief idea about the first three techniques, viz., comparative statements, common size statements and trend analysis. The ratio analysis and cash flow analysis is also covered in detail in this section respectively.



Citation: [https://www.thebalancesmb.com/thmb/csl87sZduOyA28xItLiJg5lcQtk=/2121x1414/filters:fill\(auto,1\)/GettyImages-748345779-5ace56790e23d900371a4bd6.jpg](https://www.thebalancesmb.com/thmb/csl87sZduOyA28xItLiJg5lcQtk=/2121x1414/filters:fill(auto,1)/GettyImages-748345779-5ace56790e23d900371a4bd6.jpg)

Comparative Statements

As stated earlier, these statements refer to the statement of profit and loss and the balance sheet prepared by providing columns for the figures for both the current year as well as for the before year and for the changes during the year, both in absolute and relative terms. As a result, it is possible to find out not only the balances of accounts as on different dates and summaries of different operational activities of

different periods, but also the extent of their increase or decrease between these dates. The figures in the comparative statements can be used for identifying the direction of changes and also the trends in different indicators of performance of an organization.

Comparative financial statements are the complete set of financial statements that an entity issues, revealing information for more than one reporting period. The financial statements that may be included in this package are:

- The income statement (showing results for multiple periods)
- The balance sheet (showing the financial position of the entity as of more than one balance sheet date)
- The statement of cash flows (showing the cash flows for more than one period)

Another variation on the comparative concept is to report information for each of the 12 preceding months on a rolling basis. Comparative financial statements are quite useful for the following reasons:

- Provides a comparison of an entity's financial performance over multiple periods, so that you can determine trends. The statements may also reveal unusual spikes in the reported information that can indicate the presence of accounting errors.
- Provides a comparison of expenses to revenues and the proportions of various items on the balance sheet over multiple periods. This information can be useful for cost management purposes.
- May be useful for predicting future performance, though you should rely more on operational indicators and leading indicators than on historical performance for this type of analysis.

It is customary to issue comparative financial statements with additional columns containing the variance between periods, as well as the percentage change between periods. The Securities and Exchange Commission requires that a publicly held company use comparative financial statements when reporting to the public on the Form 10-K and Form 10-Q.

Comparative Financial Statements Example

The following is an example of a balance sheet that is presented on a comparative basis.

ABC International Balance Sheet

	as 12/31/20X3	of	as 12/31/20X2	of	as 12/31/20X1	of
Current assets						
Cash	\$1,200		\$900		\$750	

Accounts receivable	4,800	3,600	3,000
Inventory	<u>3,600</u>	<u>2,700</u>	<u>2,300</u>
Total current assets	\$9,600	\$7,200	\$6,050
Total fixed assets	<u>6,200</u>	<u>5,500</u>	<u>5,000</u>
Total Assets	\$15,800	\$12,700	\$11,050
Current liabilities			
Accounts payable	\$2,400	\$1,800	\$1,500
Accrued expenses	480	360	300
Short-term debt	<u>800</u>	<u>600</u>	<u>400</u>
Total current liabilities	\$3,680	\$2,760	\$2,200
Long-term debt	<u>9,020</u>	<u>7,740</u>	<u>7,350</u>
Total liabilities	12,700	10,500	9,550
Shareholders' equity	<u>3,100</u>	<u>2,200</u>	<u>1,500</u>
Total liabilities and equity	\$15,800	\$12,700	\$11,050

Common Size Statement

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Common Size Statement, also known as component percentage statement, is a financial tool for studying the key changes and trends in the financial position and operational result of a company. Here, each item in the statement is stated as a percentage of the aggregate, of which that item is a part. For example, a common size balance sheet shows the percentage of each asset to the total assets, and that of each liability to the total liabilities. Similarly, in the common size statement of profit and loss, the items of expenditure are shown as a percentage of the net revenue from operations. If such a statement is prepared for successive periods, it shows the changes of the respective percentages over a period of time.

Common size analysis is of immense use for comparing enterprises which differ substantially in size as it provides an insight into the structure of financial statements. Inter-firm comparison or comparison of the company's position with the related industry as a whole is possible with the help of common size statement analysis. Common size ratios are used to compare financial statements of different-size companies, or of the same company over different periods. By expressing the items in proportion to some size-related measure, standardized financial statements can be created, revealing trends and providing insight into how the different companies compare. The common size ratio for each line on the financial statement is calculated as follows:

$$\text{Common Size Ratio} = \frac{\text{Item of Interest}}{\text{Reference Item}}$$

For example, if the item of interest is inventory and it is referenced to total assets (as it normally would be), the common size ratio would be:

$$\text{Common Size Ratio for Inventory} = \frac{\text{Inventory}}{\text{Total Assets}}$$

The ratios often are expressed as percentages of the reference amount. Common size statements usually are prepared for the income statement and balance sheet, expressing information as follows:

- Income statement items - expressed as a percentage of total revenue
- Balance sheet items - expressed as a percentage of total assets

Trend Analysis

The financial statements may be analyzed by computing trends of series of information. Trend analysis determines the direction upwards or downwards and involves the computation of the percentage relationship that each item bears to the same item in the base year. In case of comparative statement, an item is compared with itself in the before year to know whether it has increased or decreased or remained constant. Common size analysis is to ascertain whether the proportion of an item (say cost of revenue from operations) is increasing or decreasing in the common base (say revenue from operations). But in case of trend analysis, we learn about the behavior of the same item over a given period, say, during the last 5 years. Take for example, administrative expenses, whether they are exhibiting increasing tendency or decreasing tendency or remaining constant over the period of comparison. Generally trend analysis is done for a reasonably long period. Many companies present their financial data for a period of 5 or 10 years in various forms in their annual reports.

Trend analysis involves the collection of information from multiple time periods and plotting the information on a horizontal line for further review. The intent of this analysis is to spot actionable patterns in the presented information. In business, trend analysis is typically used in two ways, which are as follows:

- *Revenue and cost analysis.* Revenue and cost information from a company's income statement can be arranged on a trend line for multiple reporting periods and examined for trends and inconsistencies. For example, a sudden spike in expense in one period followed by a sharp decline in the next period can indicate that an expense was booked twice in the first month. Thus, trend analysis is quite useful for examining preliminary financial statements for inaccuracies, to see if adjustments should be made before the statements are released for general use.
- *Investment analysis.* An investor can create a trend line of historical share prices, and use this information to predict future changes in the price of a stock. The trend line can be associated with other information for which a

Trend analysis is a technique used in technical analysis that attempts to predict the future stock price movements based on recently observed trend data.

cause-and-effect relationship may exist, to see if the causal relationship can be used as a predictor of future stock prices. **Trend analysis** can also be used for the entire stock market, to detect signs of an impending change from a bull to a bear market, or the reverse.

When used internally (the revenue and cost analysis function), trend analysis is one of the most useful management tools available. The following are examples of this type of usage:

- Examine revenue patterns to see if sales are declining for certain products, customers, or sales regions.
- Examine expense report claims for evidence of fraudulent claims.
- Examine expense line items to see if there are any unusual expenditures in a reporting period that require additional investigation.
- Extend revenue and expense line items into the future for budgeting purposes, to estimate future results.

When trend analysis is being used to predict the future, keep in mind that the factors formerly impacting a data point may no longer be doing so to the same extent. This means that an extrapolation of a historical time series will not necessarily yield a valid prediction of the future. Thus, a considerable amount of additional research should accompany trend analysis when using it to make predictions.

Procedure for Calculating Trend Percentage

One year is taken as the base year. Generally, the first year is taken as the base year. The figure of base year is taken as 100. The trend percentages are calculated in relation to this base year. If a figure in other year is less than the figure in base year, the trend percentage will be less than 100 and it will be more than 100 if figure is more than the base year figure. Each year's figure is divided by the base year figure.

$$\text{Trend Percentage} = \frac{\text{Present year value}}{\text{Base year value}} \times 100$$

The accounting procedures and conventions used for collecting data and preparation of financial statements should be similar; otherwise the figures will not be comparable.

Cash Flow Statement

A cash flow statement is a financial statement that provides aggregate data regarding all cash inflows a company receives from its ongoing operations and external investment sources, as well as all cash outflows that pay for business activities and investments during a given period.



Citation: <https://scalefactor.com/wp-content/uploads/2018/07/simple-cash-flow-statement.jpeg>

How does a cash flow statement work?

A cash flow statement typically breaks out a company's cash sources and uses for the period into three categories: cash flow from operating activities, cash flow from investing activities, and cash flow from financing activities. It is important to note that cash flow is not the same as net income, which includes transactions that did not involve actual transfers of money (depreciation is common example of a noncash expense that is included in net income calculations but not in cash flow calculations). Cash flow from operating activities are generally calculated according to the following formula:

Cash Flows from Operations = Net income + Noncash Expenses + Changes in Working Capital

Because working capital is a component of cash flow from operations, investors should be aware that companies can influence cash flow by lengthening the time they take to pay the bills (thus preserving their cash), shortening the time it takes to collect what's owed to them (thus accelerating the receipt of cash), and putting off buying inventory (again thus preserving cash).

Cash flow from investing activities primarily reflect the company's purchases or sales of capital assets (that is, assets with a useful life of more than one year that appear on the balance sheet). It is important to note that companies have some leeway about what items are or are not considered capital expenditures, and the investor should be aware of this when comparing the cash flow of different companies. Cash flow from financing activities typically reflect the company's purchase or sale of stock and any proceeds from or payments on debt financing. The measure varies with the different capital structures, dividend policies, or debt terms companies may have.

Why do cash flow statements matter?

No matter how one measures it, cash flow helps companies expand, develop new products, buy back stock, pay dividends, or reduce debt. This is why some people value cash flow statements more than just about any other financial statement or measure out there, including earnings per share. Cash flow relies heavily on the state of a company's cash from operations, which in turn is heavily influenced by a company's net income. Thus, higher revenues, lower overhead, and more efficiency are big drivers of cash flow.

Without positive cash flow, a company may have to borrow money to do these things, or in worse cases, it may not stay in business. It is important to note, however, that having negative cash flow for a time is not always a bad thing. If a company is a net spender of cash for a time because it is building a second manufacturing plant, for example, this could pay off in the end if the plant generates more cash. On the other hand, if the company has a negative cash flow because it made a poor acquisition or other investment, then the long-term benefit might not be there. Investors often hunt for companies that have high or improving cash flow but low share prices-the disparity often means the share price will soon increase.

Ratio Analysis

Ratio analysis is the process of examining and comparing financial information by calculating meaningful financial statement figure percentages instead of comparing line items from each financial statement. Managers and investors use a number of different tools and comparisons to tell whether a company is doing well and whether it is

worth investing in. The most common ways people analyse a company's performance are horizontal analysis, vertical analysis, and ratio analysis. Horizontal and vertical analyses compare a company's performance over time and to a base or set of standard performance numbers.

Ratio analysis is the mathematical form of expressing the numerical or arithmetical relationship between two figures. It is a widely used financial analysis tool which is expressed when one figure is divided by another. It is the systematic use of ratios that determines and interprets the numerical relationship between two financial items. Ratio analysis assesses the strength and weakness as well as evaluates the historical performances and current financial conditions of a firm.

According to Kohler,

"A ratio is the relationship of one amount to another expressed as the ratio of or as a simple, fraction, integer, decimal fraction or percentage."

According to Hunt, William and Donaldson,

"Ratios are simply a means of highlighting in arithmetical terms of the relationship between figures drawn from financial statements."

Let us take an example. The income for the year from operations is let us say 1,00,000/- for a given year. The Purchases and other direct expenses cost around 75,000/-. So the Gross Profit for the year is 25,000/-. Now it can be said that the Gross Profit is 25% of the Operations Revenue. We calculate this as

$$\text{G.P. Ratio} = \frac{GP}{\text{Sales/Revenue}} \times 100$$

$$\text{G.P. Ratio} = \frac{25,000}{1,00,000} \times 100$$

$$\text{G.P. Ratio} = 25\%$$

One factor to be kept in mind is that ratio analysis is used only to compare numbers that make sense and give us a better understanding of the financial statement. Comparing random financial accounts should be avoided.

Objectives of Ratio Analysis

Interpreting the financial statements and other financial data is essential for all stakeholders of an entity. Ratio Analysis hence becomes a vital tool for financial analysis and financial management. Let us take a look at some objectives that ratio analysis fulfils.

Measure of Profitability

Profit is the ultimate aim of every organization. So if I say that ABC firm earned a profit of 5 lakhs last year, how will you determine if that is a good or bad figure? Context is required to measure profitability, which is provided by ratio analysis. Gross Profit Ratios, Net Profit Ratio, Expense ratio etc provide a measure of profitability of a firm. The management can use such ratios to find out problem areas and improve upon them.

Evaluation of Operational Efficiency

Certain ratios highlight the degree of efficiency of a company in the management of its assets and other resources. It is important that assets and financial resources be allocated and used efficiently to avoid unnecessary expenses. Turnover Ratios and Efficiency Ratios will point out any mismanagement of assets.

Ensure Suitable Liquidity

Every firm has to ensure that some of its assets are liquid, in case it requires cash immediately. So the liquidity of a firm is measured by ratios such as Current ratio and Quick Ratio. These help a firm maintain the required level of short-term solvency.

Overall Financial Strength

There are some ratios that help determine the firm's long-term solvency. They help determine if there is a strain on the assets of a firm or if the firm is over-leveraged. The management will need to quickly rectify the situation to avoid liquidation in the future. Examples of such ratios are Debt-Equity Ratio, Leverage ratios etc.

Comparison

The organizations' ratios must be compared to the industry standards to get a better understanding of its financial health and fiscal position. The management can take corrective action if the standards of the market are not met by the company. The ratios can also be compared to the before years' ratio's to see the progress of the company. This is known as trend analysis.

Advantages of Ratio Analysis

When employed correctly, ratio analysis throws light on many problems of the firm and also highlights some positives. Ratios are essentially whistleblowers, they draw the managements attention towards issues needing attention. Let us take a look at some advantages of ratio analysis.

- Ratio analysis will help validate or disprove the *financing, investment and operating decisions* of the firm. They summarize the financial statement into comparative figures, thus helping the management to compare and evaluate the financial position of the firm and the results of their decisions.
- It *simplifies complex accounting statements* and financial data into simple ratios of operating efficiency, financial efficiency, solvency, long-term positions etc.
- Ratio analysis help identify problem areas and bring the attention of the management to such areas. Some of the information is lost in the complex accounting statements, and ratios will help *pinpoint such problems*.
- Allows the company to conduct *comparisons with other firms, industry standards, intra-firm comparisons* etc. This will help the organization better understand its fiscal position in the economy.

Limitations of Ratio Analysis

While ratios are very important tools of financial analysis, they'd have some limitations, such as

- The firm can make some year-end changes to their financial statements, to improve their ratios. Then the ratios end up being nothing but *window dressing*.
- Ratios *ignore the price level changes due to inflation*. Many ratios are calculated using historical costs, and they overlook the changes in price level between the periods. This does not reflect the correct financial situation.
- Accounting ratios completely *ignore the qualitative aspects of the firm*. They only take into consideration the monetary aspects (quantitative)
- There are *no standard definitions* of the ratios. So firms may be using different formulas for the ratios. One such example is Current Ratio, where some firms take into consideration all current liabilities but others ignore bank overdrafts from current liabilities while calculating current ratio
- And finally, accounting ratios *do not resolve any financial problems* of the company. They are a means to the end, not the actual solution.

Funds Flow Statement

The balance sheet and income statement are the traditional basis financial statements of a concern. They furnish useful financial information regarding the operation of the concern; however, a serious limitation of these statements is that they fail to provide of time regarding changes in the financial position of a concern during a particular period of time. Funds flow statement, which is known as the statement of charges in financial position, overcomes these limitations of traditional financial statements.

The statement of charges in financial position is a statement of flows of resources of a concern. The statement of changes in financial position measures the changes that have taken place in the financial position of a concern between two balance sheet dates. It summarizes that the sources from which funds have been obtained and the uses to which they have been utilized.



Citation: [https://www.thebalancesmb.com/thmb/Q5CySghbtWTDxm8TezzzkGuFFyM=/2122x1415/filters:fill\(auto,1\)/GettyImages-485208815-5734c4f65f9b58723d9cfe77.jpg](https://www.thebalancesmb.com/thmb/Q5CySghbtWTDxm8TezzzkGuFFyM=/2122x1415/filters:fill(auto,1)/GettyImages-485208815-5734c4f65f9b58723d9cfe77.jpg)

Meaning and Concept of Funds Flow Statement

Funds flow statement is the statement of sources and uses of fund. Funds flow statement shows the source from which the funds are received and the areas to which they obtained funds have been utilized. Funds flow statement indicates various means by which funds were received during a particular period and the ways in which these funds were applied.

Funds flow statement comprises three words- fund, flow and statement. 'Fund' means the financial resources used by a concern. In the sense of working capital. 'Fund' represents the net working capital. The excess current asset over the current liabilities is called net working capital. Similarly. The term 'flow' means the movement of funds

and includes both inflows (receipt) and outflows (payments) of fund. Funds from operation, issue of share and debentures, additional long term debt, non operating revenues etc. are considered as the major sources of fund. Increase in working capital, redemption of debenture, repayment of long term loan, payment for non operating expenses etc. are the amine areas of uses of fund. The term 'statement' represents the format or account under which the flows of fund i.e. cash inflows and outflows are recorded. Funds flows statement is known by various names such as statements of sources and uses of funds, summary of financial operations, which got and where goes statement, movement of working capital statement, funds received and disbursement statement etc.

"The funds statement describes the source from which additional funds were derived and the use to which these sources were put."

Thus, funds flows statement is an essential tool for financial analysis. It explains the sources from which additional fund i.e. working has been arrived and the uses to which the funds or working capital has been employed. Found flow statement is prepared on the basis of two balance sheets of subsequence dates and highlights the changes in the **financial position** of a concern.

Financial position, a company's financial situation is defined by its assets and liabilities. A company's financial position also includes shareholder equity. All this information is presented to shareholders in the balance sheet.

Objective and Importance of Funds Flow Statement

The main objectives of funds flow statement are as below:

- **To explain the changes in financial position:** the objective of funds flow statement is to disclose the cause of changes in the assets, liabilities and equity capital between two balance sheet dates. It highlights the changes in financial position of a concern and indicates the various means by which funds were obtained during a particular and the ways to where these funds were utilized.
- **To analyze the operational position:** another objective of found flow statement is to analyze the operational position of a concern. Balance sheet gives a static view

of the financial position and the profit and loss reported by income statement cannot tell about the actual liquidate position of a firm. Sometimes a firm with high profit may not be able to pay its immediate liabilities due to the shortage of cash. But the objective of funds statement is to explain both the causes of various in different assets, liabilities and capital accounts and their effect on the liquidity position of the concern.

- To help in proper allocation of resources. The objective of funds flow statement is to provide information regarding the allocation of limited resources with more efficiently and effectively. It provides the information about the internal and external sources of financing furthermore. It provides data regarding the unbalance fund. On the basis of such information a concern can allocate its funds in and long-term areas more properly.
- **To evaluate financial position.** Internal and external users of financial statements require funds flow statement for the purpose of assessing the strengths and weakness of the concerned firm. Funds flows statement provides information regarding the changes in net information enable various groups of users to assets and evaluate the financial position of the firm.
- **To act as future guide:** funds flow statement acts as a guide for future to management. Funds flow statement provides information about the historical changes in net assets and capital which enable the management to develop a projected funds flow statement. Such projected funds flow statement helps to product need for found and alternative sources of financing.

Procedures of Preparing Funds Flow Statement

Funds flow statement is prepared on the basis of balance sheet of two subsequent dates and other information such as net profit or loss reported by income statement, operation and non-operating expenses, losses and gains etc. the procedures of preparing funds flow statement consists of the following three steps:

Net working capital is related with current assets and current liabilities. A fund from operation is determined with the help of net income or loss, non-operating and non-cash items. Similarly, funds flow statement is prepared from the differences of non-current assets, non-current liabilities and non-operating items.



Citation: <https://www.wikihow.com/images/1/1e/Prepare-a-Financial-Report-Step-4.jpg>

Statement of changes in working capital

The difference between current assets and current liabilities is called net working capital. In other words, working capital is the excess current assets over the current liabilities. Current assets are those assets which can be converted into cash within short time period (generally one year) without any adverse effect in their value. The examples of current assets are cash in hand, bank balance, prepaid expenses, accrued income, bills receivable, marketable securities, debtors, short-term investment, inventories/ stock and other short term assets.

Similarly, current liabilities are those outsiders' obligation which must be repaid within short notice and includes creditors, bills payable, advance incomes, bank overdraft, outstanding expenses, short-term loan and other short term liabilities.

On the basis of current assets and current liabilities reported on two balance sheets, the change in net working capital is determined as follows:

Net working capital = current assets - current liabilities

The changes in the amount of any current asset or current liability in the current year's balance sheet as compared to before year's balance sheet result either increase

or decrease in net working capital. The rule for identifying such increase or decrease is as below:

- Increase in current asset – increase in working capital.
- Decrease in current asset – decrease in working capital.
- Increase in current liability - decrease in working capital.
- Decrease in current liability – increase in working capital.

For the purpose of determining the changes in net working capital, a statement of changes of working capital is prepared with help of the current asset and current liabilities reported in two balance sheets. The format of statement of changes in working capital is as below.

Funds from operation

The amount of working capital provided by a business organization from its day to day business operation is called funds from operation. The profit reported by the income statement (profit and loss account) does not indicate the actual working capital generate from the operation of business due to the following reasons:

- Profit and loss account contains non-cash operating express such as depreciation which do not involve any movement of fund.
- Profit and loss account contains non-cash operating expenses and losses such as amortization of intangible assets, loss on sales of fixed assets and investment etc., which do not involve any corresponding movement of fund.
- Profit and loss account contains non-operating incomes and gains such as dividend received. Gain on sale of fixed assets and investment, premium on premium on repayment of long term debt etc.

Fund from operation is determined on the basis of net income, non-cash expenses and non-operating items. The operating and non-operating and non-operating items are stated in the following table.

Funds from operation is determined by making necessary adjustments for above non-operating and non cash item with the profit or loss as reprinted by the profit an loss account. Funds from operation can be determined either through a statement or by preparing an adjustment profit and loss account.

- Determination of funds from operation by using statement methods

Under statement method, all the non cash expenses, non operation expenses and non operating losses are added to back with net profit for the purposes of determining funds from operating. Similarly, all the non operation revenues, incomes and gains are sub scripted from the net profit. It is important to note that all the items of profit and loss account which are paid in cash and related with the operation of the business are ignored while determining the funds from operation.

- Determination of funds from operation by adjusted profit and loss account

Under this method, an adjusted profit and loss account is prepared by debiting all the non cash expenses, non operation expense and non-operating together with net profit. Similarly, all the non operation expenses and non-operating expenses with net profit. Similarly, all the non operation revenues, income and gains are credited to an adjusted profit and loss account. Like statement method, all the items of profit and loss account which are paid in cash and related with the operation of the business are ignored while determining the funds from operation under adjustment profit and loss and loss account method too. The format of an adjusted profit and loss account has been presented as below:

- Determination of funds from operation under direct method

This method is just reverse to above two methods. Under this direct method. All the expenses which are required for the operation of business and are paid in cash are sub scripted from the operating revenue whereas all the non cash expenses, non operation income and gains are ignored.

Funds flow statement

Funds flow statement is a statement, which depicts different sources from which funds have been obtained during a certain period and the applications to which these funds have been spent. Before preparing funds flow statement, the concept flow of fund and non flow of fund should be cleared.

Flow of fund

The flow of funds occurs only when a transaction changes on the hand a non current (fixed asset or fixed liability) account and on the other hand a current account (current asset or current liability). In other words, the flow of funds occurs when a transaction affect:

- Current assets and fixed assets e.g. sale of fixed assets on cash, or credit.
- Current liabilities and fixed assets e.g. purchase of fixed assets on credit.
- Current assets and fixed liabilities e.g. purchase of investor by the issue of shares or debenture, or
- Fixed liabilities and current liabilities e.g. payment to creditor by the issue of debentures etc.

No flow of fund

The flows of fund does not occur when a transaction affects fixed assets and fixed liabilities or current assets and current liabilities. Purchase of investor on cash or credit,

sales of inventory on cash or credit, payment to creditors, collection from debtors, sales or purchase of marketable securities, exchange of fixed assets, redemption of debenture by the issue of shares, purchase of fixed assets by the issue of shares, conversion of debentures into shares etc. are the examples of some transactions which do not affect the flow of funds and not recorded in the funds flow statement.

Analysis of non-current assets and liabilities

For the purpose of preparing funds statement, non-current assets and non-current liabilities are taken into consideration. It is because current assets and current liabilities are shown in statement of changes in working capital. The effect of changes in non-current assets is as below:

Format of funds flow statement

The funds flow statement can be prepared either by using horizontal format or by using vertical format.

- **Horizontal format:** horizontal form of funds flow statement is prepared by showing sources of funds in the left hand side and uses of funds in the right hand side which is as below:
- **Vertical format:** under this form of fund statement, sources of funds are shown on the upside of the statement and uses of funds (except working capital) are shown just below the source of funds. The difference of sources and uses is called net changes in working capital.

Limitation of Funds Flow Statement

Funds flow statement is a major tool of financial analysis, however, it has the following limitations.

- **Ignores the non-fund transactions:** fund flow statement ignores the non-fund transactions i.e. it does not take into consideration those transactions which do not affect the working capital. For example, funds flow statement does not record the purchase of fixed assets by the issue of share or debentures.
- **Based on secondary information:** funds flow statement is based on secondary data. In other words, funds flow statement is based on income statement and balance sheet.
- **Historical in nature:** funds flow statement is historical in nature because it is prepared on the basis of historical financial statement i.e. balance sheet and income statement.



Citation: https://www.incimages.com/uploaded_files/image/1940x900/getty_486402826_367412.jpg

Adjustments

To identify whether there is an inflow or outflow of funds on account of non-current items, the accounts of all non-current items should be prepared after taking into consideration the following:

- Opening balance (given in opening balance sheet)
- Closing balance (given in closing balance sheet)
- Relevant additional information (if any given)
- Adjustments related to tangible fixed assets

Tangible Fixed Assets

Tangible fixed assets accounts are prepared as below:

- Start entering the opening balance in the debit side.
- Enter the closing balance in the credit side.
- If the amount of debit side is less than the amount of credit side, the balancing figure represents the purchase of assets.
- If the amount of **credit side** is less than the amount of debit side, the balancing figure represents the either sales of assets or depreciation of fixed assets.

The format of tangible fixed assets account is as below:

Credit side of an account is the right-hand side. The transactions involving cash payments are listed on the credit side of the balance sheet.

Purchase and sales of fixed assets on cash

Fixed assets account on which no depreciation has been charged is prepared as below:

- Opening balance of fixed assets is debited and closing balance is credited.
- The balance figure of credit side represents the sales of fixed during the year and is treated as sources of funds. In the absence of any information, the decrease in the cost price of assets is assumed as the sales of assets.
- The debit balance represents the purchase of fixed assets during the year and is treated as uses of fund. In the absence of any information, the increase in the cost price of assets is assumed as purchase made during the year.
- The loss on sale is transferred to adjusted profit and loss account and is appears in the credit side of assets account. If there is gain on the sale of asset, it will appear in the debit side of account. In the absence of any information, it is assumed that there is no profit or loss and no accumulated depreciation on the part of asset which has been sold.

Depreciation of fixed assets

Depreciation is the gradual in the value of fixed assets due to their continuous and permanent use. Depreciation is treated as an expense and debited in the value of fixed assets due to wear, age, or obsolesces as well as a source of fund. The effect of depreciation is show in the balance sheet in the following ways.

- **Net cost method:** under net cost method, assets are recorded at book value or net cost i.e. depreciation is deducted from the cost of assets in the assets side of balance sheet. Under this method a separate depreciation account is not shown in the balance sheet. The depreciation charged during the year is debited in the profit and loss account. While preparing funds flow attempt, the depreciation charged on fixed assets is credited to related assets account and debited in the

adjusted profit and loss assets is credited to fixed asset account is as below:

- **Gross cost method:** Under gross cost method, assets are recorded at original cost and accumulated depreciation is not deducted from the cost of asset. Under this method, a separate depreciation is not deducted from the cost of assets. Under this method, the assets side in the form of deduction.
- **Accumulated depreciation is given in additional information:** if the opening balance and closing balance of accumulated depreciation account is given in additional information is stead of balance sheet, it is treated as below:
 - Assets account is prepared by adding opening balance and closing balance of accumulated depreciation with opening balance and closing balance of assets. This is similar to gross cost method.
 - Accumulated depreciation is prepared under which accumulated depreciation of sold part is debited and depreciation for the year is credited.

Purchases of assets by the issue of shares or debentures

Sometimes companies issue shares of debenture to purchase current and non-current assets. There is no flow of fund it non-current assets are purchase by the issue of non-current liabilities such as shares and debentures. However, there is flow of funds if current assets are purchase through fixed liabilities such as by the issue of share or debenture. The nature of assets and liabilities and their impact on the flow of fund has been presented in the following exhibit.

Adjustment relate to intangible assets

Goodwill patent, copyright and trademarks are the example of intangible assets. In the absence of any information, the increase in intangible assets is treated as the purchase and decrease in these assets is considered as written off. The increased value of increased value of intangible assets is recorded as use of fund and written off value is debited into adjusted profit and loss account.

- Start entering the opening balance in the debit side.
- Enter the closing balance in the credit side.
- If the amount of debit side is less than the amount of credit side, the balancing figure represents the purchase, in the absence of any information.
- If the amount of credit side is less than the amount of debit side, the balancing figure or credit side reprints written off or amortization of intangible assets which is trading to profit and loss account.

Adjustment related to miscellaneous expenditures

Discount on issue of shares and debentures, underwriting commission, preliminary expenses advertisement development account etc. are the example of miscellaneous expenditures and losses. Such accounts nacre prepared as below:

- Start entering the opening balance in the debit side.
- Enter the closing balance in the credit side.

Generally, there is no debit balance of fictitious assets account. If the amount of credit side is less than the amount of debit side, the balancing figures of credit side represents written off or amortization of fictitious assets which is transfer to profit and loss account.

- Decrease in miscellaneous expenses: any decrease in miscellanea expenses account is considered as written off. Like entailed assets the written off value of miscellaneous expenses account is debited into profit and loss account.
- Increase in value of miscellaneous expenses: generally, the values of miscellaneous expenses do not increase, however, in special case, the value may increase and the increased values to which miscellaneous expenses are increased. In the absence of any information, the increase value is considered as payment and recorded in the uses side of funds flow statement.

Adjustments related to non-current liabilities accounts

Non-current liabilities accounts are prepared as below:

- Enter the opening balance in the credit side.
- Enter the opening balance in the debit side.

In case of share capital, share premium, debenture and other long-term debt, the balancing figure of credit side represented sources of funds i.e. issue of share/debentures, additional loan received, etc. the balancing debit side represented the redemption of debentures or payment of loan etc. in case of provision, the different is generally transferred to profit and loss account in the absence of information.

- **Adjustments related to ordinary and preference shares:** shares capital is a non-current liability. The increase in the both types of shares capital account is an indication of additional issue of shares capital and is regarded as a source of funds. Shares are issued on the following conditions:
 - i. **Issue of shares at par:** if shares are issued at par, the net increase in the shares capital account is treated as the source of fund.
 - ii. **Issue of shares at premium:** if shares are issued at premium, the actual amount received would be more than the net increase in share capital account. In the case of premium the source of founds includes increase in

par value of shares plus increase in shares premium account.

- iii. **Issue of shares at discount:** in case of discount, the source of funds includes increase in par value of shares minus increase in discount on issue of shares account.

Adjustment related to provision for taxation

Provision for taxation is treated as below:

- **Current liabilities:** in the absence of any information, provision for taxation is treated as current liabilities and included in the statement of changes in working capital.
- **Non-current liabilities:** provision for taxation may be treated as non-current liabilities. In such condition. The actual amount paid is recorded as the use of fund balance is treated as provision made during the year which is debited into adjusted profit and loss account.

Adjustment related to dividend

- **Provision for dividend:** like provision for taxation, provision for dividend is treated as current liabilities and included in the statement of changes in working capital.
 - i. **Non-current liabilities:** generally, provision for dividend is treated as non-current liabilities. In such condition, the actual amount paid is recorded as the use of fund and the balance is treated as provision made during the year. The procedure of adjusting dividend has been presented in the following exhibit.
 - ii. **Current liability:** in the absence of any information, provision for dividend is treated as current liabilities and included in the statement of changes in working capital.
- **Interim dividend:** interim dividend paid by the company is debited into adjusted profit and loss account and show in the uses side of funds flow statement.
- **Cash dividend:** cash dividend is paid from in distributed profit. Retained earnings account or reserve and surplus account represent the balance of undistributed profit. In the absence of any information, cash dividend paid is ascertained by preparing retaining earning/ reserve and surplus account in the following manner:
- **Stock dividend:** sometimes companies distribute additional shares to shareholders as dividend. Such dividend is called stock dividend or bonus shares. The balance of undistributed profit decrease and shares capital increase

due the stock dividend. However, cash balance is unaffected by the stock dividend. Therefore, stock dividend is not treated as use of fund and not shown in the funds statement. The effect of stock dividend on different accounts is as below:

- i. **First method:** under this method, retained earning account is prepared to determine the amount of net profit or dividend which is not given. Thereafter, adjusted profit and loss account is prepared to determine the funds from operation.
- ii. **Second method:** under this method, stock dividend is shown in the debit side of adjusted profit and loss account prepared on the basis of retained earning account as below.



Citation: [https://www.thebalancesmb.com/thmb/eyo2_ETQGrhG0oAWputlbJIPXIk=/2000x1500/filters:no_upscale\(\):max_bytes\(150000\):strip_icc\(\)/GettyImages-597660013-57731e4b3df78cb62cfb375f.jpg](https://www.thebalancesmb.com/thmb/eyo2_ETQGrhG0oAWputlbJIPXIk=/2000x1500/filters:no_upscale():max_bytes(150000):strip_icc()/GettyImages-597660013-57731e4b3df78cb62cfb375f.jpg)

Difference between Funds Flow and Cash Flow Statement

Cash Flow statement shows the changes in the cash position (Inflows and outflows) of a firm. It is an analytical reconciliation statement which explains the reasons for the differences between the opening and closing cash balances over a period. On the other hand, Fund Flow statement is a statement that shows the ups and downs of the financial position or the changes in working capital of the entity between the two financial years.

The financial position of any company can be better understood with the help of a cash flow statement and fund flow statement, along with the Balance Sheet and Income statement. These two statements helps stakeholders to know the sources and application of cash or funds. So, take a glance of the given section to understand the difference between cash flow and fund flow statement.

Comparison Chart

BASIS FOR COMPARISON	CASH FLOW	FUND FLOW
Meaning	A cash flow statement is a statement showing the inflows and outflows of cash and cash equivalents over a period.	A fund flow statement is a statement showing the changes in the financial position of the entity in different accounting years.
Purpose of Preparation	To show the reasons for movements in the cash at the beginning and at the end of the accounting period.	To show the reasons for the changes in the financial position, with respect to before year and current accounting year.
Basis	Cash Basis of Accounting.	Accrual Basis of Accounting.
Analysis	Short Term Analysis of cash planning.	Long Term Analysis of financial planning
Discloses	Inflows and Outflows of Cash	Sources and applications of funds
Opening and closing balance	Contains opening and closing balance of cash and cash equivalents.	Does not contains opening balance of cash and cash equivalents.
Part of Financial Statement	Yes	No

Definition of Cash Flow Statement

A cash flow statement shows the inflows and outflows of cash and cash equivalents. Cash includes cash in hand and demand deposits with the banks while cash equivalents are highly liquid investments i.e. they can be readily converted into cash like marketable securities, commercial papers, and short-term government bonds. It explains the changes

Bank is a financial institution that accepts deposits from the public and creates credit. Lending activities can be performed either directly or indirectly through capital markets.

in the cash in hand and cash at **bank** at the beginning and the end of the accounting period.

Accounting standard – 3 deals with the cash flow statement. It has been classified into three broad categories:

- **Operating Activities** – representing movements of money due to regular business operations like the purchase, sale, production, etc. of goods.
- **Investing Activities** – representing the movement of cash due to the purchase or sale of assets or any other investment activities of the business.
- **Financing Activities** – accounts for the funds raised through the issue of shares or debentures, long term loans, etc. and utilized for the redemption of shares or debentures and payment of dividend, etc.

There are two methods of preparation of a Cash Flow Statement, they are:

- Direct Method
- Indirect Method

Definition of Fund Flow Statement

Funds refer to the working capital of the company, so fund flow statement is a statement that studies the changes in the working capital of the business between two accounting years. It shows the additions in the working capital through various sources like issuing shares, debentures or raising loans, etc. and reduction in it through different applications like the redemption of shares or debentures, repayment of loans, purchase of fixed assets, etc.

Fund Flow Statement explain the reasons for the change in the working capital of the business between two Balance Sheet dates through various Non-Current Assets and Non-Current Liabilities, which are responsible for the increase or decrease in the working capital. A fund flow statement displays the financial status of an organization, which ensures easy comparison and analysis between two accounting periods. It is helpful in understanding the variability in the assets, liabilities and equity of the company.

Key Differences between Cash Flow and Fund Flow Statement

- A statement that shows the changes in the cash and bank balance between opening and closing dates is known as a cash flow statement while a statement that shows the variations in the financial position between the two financial years is known as a fund flow statement.
- Cash Flow Statement analyses the cash generating efficiency of the entity. Conversely, Fund Flow Statement examines the firm's efficiency in utilizing the working capital.
- Cash Flow statement is a part of Financial Statement. Unlike Fund Flow Statement which is not a part of the Financial Statement
- Cash Flow statement is useful for a short term financial analysis of cash planning while Fund Flow Statement is helpful to a long-term analysis of financial planning.
- Cash flow statement contains opening and closing balances of cash and cash equivalents. On the contrary, fund flow statement does not contains opening and closing balances of cash and cash equivalents.
- Cash Flow statement uses the Cash basis of accounting. On the contrary, Fund Flow statement uses the Accrual Basis of Accounting.
- Cash Flow statement shows the inflows and outflows of cash, but Fund Flow Statement shows the sources and application of funds.

There are so many differences between the Cash Flow and Fund Flow, each essential for the sustenance of the firm. They are useful in analyzing the position of cash and funds in the business. Both of them enabled the users of the financial statements to project various plans and policies, liquidity, and solvency of the company.



Citation: <https://cdn.wallstreetmojo.com/wp-content/uploads/2016/07/quantitative-financial-analyst.jpg>

Limitations of Financial Analysis

Though financial analysis is quite helpful in determining financial strengths and weaknesses of a firm, it is based on the information available in financial statements. As such, the financial analysis also suffers from various limitations of financial statements. Hence, the analyst must be conscious of the impact of price level changes, window dressing of financial statements, changes in accounting policies of a firm, accounting concepts and conventions, personal judgment, etc. Some other limitations of financial analysis are:

- Financial analysis does not consider price level changes.
- Financial analysis may be misleading without the knowledge of the changes in accounting procedure followed by a firm.
- Financial analysis is just a study of reports of the company.
- Monetary information alone is considered in financial analysis while non-monetary aspects are ignored.
- The financial statements are prepared on the basis of accounting concept, as such, it does not reflect the current position.



ROLE MODEL

BENJAMIN GRAHAM: FATHER OF VALUE INVESTING

Benjamin Graham, widely known as the ‘father of value investing’, was an American investor, economist and academic. Born in United Kingdom towards the end of the nineteenth century he moved with his parents to the USA at the age of one, losing his father at nine. Thereafter, he grew up under extreme

poverty, which motivated him to earn enough money and make his family comfortable. Always a bright student, he earned his bachelor’s degree from Columbia University and then took up a job at the Wall Street as a chalker. Quickly climbing the ladder and earning enough, he formed his own partnership firm at the age of 32 and started teaching at Columbia University at 34. Although he lost substantial chunk of his asset in the stock market crash of 1929 it failed to dampen his enthusiasm and learning from his mistake, he wrote two widely acclaimed books on investment. His concepts in managerial economics have led to development of value investing within different investment vehicles like mutual funds, hedge funds, diversified holding companies. He had many disciples, among whom Warren Buffet is most notable.

Childhood and Early Years

- Benjamin Graham was born as Benjamin Grossbaum on May 9, 1894, in London, England into a Jewish family. His parents, Isaac M. and Dorothy Grossbaum, migrated to the USA when he was one year old, eventually settling down in New York, where Isaac started an export import business.
- In 1903, Isaac Grossbaum passed away, leaving his wife to take care of nine year old Benjamin and his two younger siblings, Leon and Victor. While she could still manage, the Bank Panic of 1907 robbed her of her savings, forcing the family to move in with Dorothy’s brother, Maurice Gerad.
- A brilliant student at school, Benjamin entered Columbia University on a scholarship, graduating in 1914 as salutatorian of his class. At that time, he was just 20 years old and ready to make his fortune, taking a bold and unorthodox step.

- Few weeks before his graduation, the University offered him teaching positions in three different faculties: Greek and Latin philosophy, English, and mathematics. Although the job would have given him financial security he declined the offer and joined the Wall Street.

Early Career

- In 1914, Benjamin Grossbaum began his career as a messenger at the Newburger, Henderson and Loeb, a brokerage firm at the Wall Street. In those days, it was deemed a revolutionary step because at that time university graduates did not consider stock broking as a career option.
- Initially, his main job was to write scores on the blackboard; but with the passage of time, as he won the confidence of the proprietors with his natural intelligence he was given other responsibilities. Very soon, he was doing financial researches for the firm.
- Rising through the ranks exceptionally quickly, he became a partner of Newburger, Henderson and Loeb in 1920. He was soon earning \$50,000 per year. Sometime now, he changed his surname to suit the Wall Street ambience, becoming Benjamin Graham instead of Grossbaum.

Forming Partnership

- In 1926, Benjamin Graham formed Graham Newman Co with Jerome Newman, another Wall Street broker. It was indeed a revolutionary partnership as they adopted some radical strategies, which not only safeguarded their clients' investments, but also enabled them to provide a 670% return over a period of ten years. .
- While putting a bet that a particular stock price was going to rise, they would place simultaneous bet that the price of another stock was going to fall. This way, they could fully use the available resources, without having to keep cash cushions, outperforming leading mutual funds by 40%.

Northern Pipeline Affair

- Also in 1926, Graham made an astonishing discovery, which helped him to establish his position in the stock market. Back in 1911, Standard Oil, owned by the Rockefellers, was broken up into 34 independent entities. However, knowing little about their financial status, Wall Street paid hardly any attention to them.

- In 1926, all pipeline companies were asked to file financial statements to the Interstate Commerce Commission, which they did very superfluously. While going through these reports, Benjamin Graham was instinctively drawn to one Northern Pipeline Company. Wanting to know more about its financial status, he immediately took a train to Washington.
- To his astonishment he found that while the Northern Pipeline was trading at \$65 per share, the company held railroad bonds at \$95. He also realized that the nature of its holding, which included other liquid assets, was such that the company could distribute its assets without affecting the operators.
- Graham now began to pick up the company's stock, acquiring 5% of it within 1926. He now went to meet the top boss of Northern Pipeline, demanding that they distribute the excess asset to the shareholders because they were its rightful owners. But they refused to entertain the idea.
- In 1927, during the shareholders' meeting, Graham took his proposal directly to his shareholders. As required, he put his proposal in the form of a motion; but none of the present shareholders agreed to second it and therefore, it was discarded.
- Undeterred, Benjamin Graham decided to take his battle to the next stage via proxies. Hiring a law firm, he now began to solicit proxies. He also visited Rockefeller's Foundation; but did not receive much encouragement. However, by January 1928, he had acquired proxies for roughly 37.50% of the company's shares.
- The shareholder's meeting in 1928 was a turning point in Graham's career. In this meeting, he not only had 37.50% proxies with him, the Rockefeller Foundation, which gave their proxies to the company management, sent a directive that the company should distribute as much cash as the business can spare.
- Northern Pipeline was now forced to accept Graham's election to its board. Shortly, they distributed \$70 per-share of excess liquid assets to its shareholders. Impressed, Rockefeller invited him for a meeting, eventually reaching out to other affiliates, who had excess liquid cash, urging them to distribute it among its rightful owners.
- At the urging of Rockefeller, many other former associates began offloading their excess liquid cash, distributing them among the shareholders. Known as 'Northern Pipeline Affair, the ripple effect established Benjamin Graham as a brilliant analyst and a shareholder activist.

After Stock Market Crash

- Graham's success in the Northern Pipeline Affair opened another avenue for him. In 1928, he joined Columbia Business School of Columbia University as a faculty member, a position he held until 1955.
- In 1929, as the stock market experienced a major crash, setting in the Great Depression, Graham Newman Partnership lost major portion of their stock; but still managed to remain afloat. Eventually they regained their assets; never to lose again, enjoying an average annual return of 17% until 1956.
- The stock market crash also set him thinking, resulting in the publication of his first book, 'Security Analysis' in 1934. Co-written with David Dodd, it was the first book to systematically deal with the study of investments.
- In 1948, Graham Newman Co bought Government Employees Insurance Co. In spite of the word 'Government' in its name it was a private firm. Since an investment funds could not own an insurance company, they turned it into a public company, distributing shares among investors.
- In 1949, he published his seminal work, 'The Intelligent Investor'. Concurrently, he continued to play an important role in the stock market, buying shares that traded far below the companies' liquidation value and thus he continued to make profit in stocks while minimizing downside risk.

Noted Disciples

- Over the years, Benjamin Graham's performance in the stock market attracted the attention of many young would-be investors. One of them was Warren Edward Buffet. In 1949, the nineteen year old would-be business magnet and investor enrolled at the Columbia University only to study with him.
- Upon graduation in 1951, Buffet approached Graham for a job in his company, wishing to work in the stock market. He had such an enormous respect for Graham that he was willing to work without salary.
- Although initially Graham discouraged him he later relented. Buffet joined the Graham Newman Corporation in 1954 at an annual salary of \$12,000, remaining there until Graham retired in 1956. He later remembered Graham to be a tough, but accommodating boss.
- It is not known when, but Graham also took classes at New York Stock Exchange Institute, where American investor and fund manager, Walter J. Schloss, was one of his students. Eventually, he also went to work for Graham, learning from him the tricks of the trade.

- Graham also yielded enormous influence on Irving Kahn, his teaching assistant at the Columbia Business School at Columbia University. Few other noted investors, who considered themselves to be Graham's disciples and employed his value investing techniques, were William J. Ruane, Seth Klarman, Bill Ackman and Charles H. Brandes.

Later Years

- In 1956, Benjamin Graham dissolved his partnership with Newman and retired from stock market. Thereafter, he moved to California, teaching at the University of California, Los Angeles and also at Anderson School of Management, New Mexico. Concurrently, he also kept his home in New York and traveled frequently to France.
- Although he dissolved the partnership, his interest in the stock market did not diminish. He spent a large part of his retired life devising simplified formulas, which would help average investors to invest in stocks. He also wrote extensively about monetary policies.
- Over the time, he became disillusioned with average stockholders as they failed to demand their rights as the true owner of the company. However, he saw a light of hope in takeovers as that forced the companies to function properly.
- During his later years, he also started taking Sunday classes for children not belonging to any church or temple. He told them about history of religion, discussing the topic in general. The children loved these classes.

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Major Works

- Benjamin Graham is best remembered for his two books, 'Security Analysis' and 'The Intelligent Investor'. While in 'Security Analysis', he clearly distinguished between investment and speculation, in 'The Intelligent Investor', he mainly dealt in value investing.
- He is also famous for devising, what we now call 'Benjamin Graham formula'. Published in 'The Intelligent Investor', the formula helps the investors to quickly determine if their stocks were priced rationally. His two other popular concepts were 'Mr. Market' and 'margin of safety'.

Personal Life and Legacy

- Benjamin Graham married thrice; but little is known about his spouses or his children. His first wife, whose name remains unknown, was initially a dance

teacher. Although she later gave up her career to look after her family she had to resume teaching after the 1929 stock market crash.

- Graham divorced her first wife in 1937, marrying a young actress in the following year. But this marriage was also short lived. He shortly divorced her to marry his secretary, Estelle Messing Graham. Estelle, also called Estie, had been described as “a warm, giving and non-judgmental person”.
- With Estelle, he had one son, Benjamin Graham Jr. From his before two marriages, he had at least two more sons; Newton, who died of meningitis of the spine at the age of eight and Newton II, who served in the U.S. Army.
- In 1954, his second son Newton II, while posted in France, committed suicide. On receiving the news, Graham traveled to France to make arrangement for his last rites. There, he met Marie Louise Amigues, who though twenty years senior to Newton, was in relationship with him.
- Eventually Graham and Amigues developed a relationship and Graham began to spend more time with her. In 1965, he told Estelle that he would stay with her in California for six months and spend the other six months with Amigues in France. When Estelle rejected the offer he left home.
- On September 21, 1976, Graham died in Aix-en-Provence, France, at the age of 82.
- His concepts on investor psychology, minimal debt, buy-and-hold investing, fundamental analysis, concentrated diversification, buying within the margin of safety, activist investing, and contrarian mindsets are still being used by the serious investors all over the world.

Trivia

- Legendary investor Warren Buffet named his eldest son Howard Graham Buffet as a tribute to his teacher, Benjamin Graham.

ETHICS

ETHICAL ISSUES ON A FINANCIAL STATEMENT

Preparing and maintaining precise and reliable financial statements is the essence of fair financial reporting. However, as practice shows, many companies are looking for ways to present their financial standing in a better light rather than it actually is. The purpose for such unethical behavior could be an intention to increase a company's market capitalization, ease off the debt load or simply avoid paying dividends or fulfill contract obligations to its partners.

Things To Watch

The most common way to present things in a better light is to increase earnings and hide costs. A simple way to boost earnings in income statements is to recognize revenues earlier than they actually occur. Fraudulent asset valuations happen when companies utilize off-balance sheet financing or create hidden reserves to show minimal income. These are the unethical accounting practices to watch for on financial statements.

Revenue Recognition

The only way a company can recognize and report earnings on a financial statement is when most of the job is complete, the costs are known and its clients are ready to pay their bills. Unethical accounting introduces fraudulent timing differences, such as recognizing revenues at the time of contract signing before producing or shipping the product. As a result, earnings may never happen due to unreliable clients that do not pay or unexpected increases in production costs. There are two primary methods of revenue recognition: the sales method and percentage of completion. The first method defines revenue at the moment of sale -- the moment when goods or services are transferred to the buyer in exchange for cash. The second method defines revenue as a percentage of the work completed -- this method is common for large-scale manufacturers, such as aircraft makers or construction companies.

Off-balance Sheet Financing

Some managers have been known to apply particular accounting methods to show little debt on the balance sheet. Off-balance sheet financing allows companies to hide expenses by putting them into joint ventures, research projects or purchasing equipment

Financial Management

through operating leases rather than reporting the full ownership. In order to examine the reliability of debt structure, users of financial statements should also consider the influence of top managers over accounting policies.

Hidden Reserves

Creating hidden reserves is another unethical accounting method to decrease taxable income. By creating fraudulent asset valuations, a company shows less resources on the balance sheet but overstates its liabilities, such as listing buildings or land for a price below market value. By releasing hidden reserves, a company can show higher income and improve its numbers on financial statements. Therefore, savvy investors should carefully study the footnotes where companies have to state the release of hidden reserves.

FOCUS ON**HOW TO UNDERSTAND A NONPROFIT FINANCIAL STATEMENT**

Nonprofit organizations submit financial statements to government authorities, lenders and investors just like their for-profit counterparts, although the focus of the financial statements is slightly different. Understanding a nonprofit financial statement involves analyzing the items that are relevant to wise financial management and sustainability rather than placing emphasis on profit and revenue growth.

- Read the income statement, also known as the statement of activities, to analyze the organization's income and expenses for the period. Pay special attention to the ratio of total expenses to total income; an organization with a high ratio of expenses to income may be productively allocating all available resources to its services and programs, or it may not be managing its finances wisely. Keep this information in mind when reading other financial statements to get a clearer picture of the income statement's implications.
- Read the balance sheet, also known as the statement of financial position, to get an in-depth look into the organization's assets. Take notice of the organization's total liabilities, and compare it against its cash and liquid assets. As a rule, a nonprofit organization should not be accumulating large amounts of debt, since the organization is not likely to conduct profit-generating business activities to repay loans. Most of a nonprofit's liquid assets should come from donations, grants and investment income.
- Read the statement of cash flows to analyze the organization's spending patterns. The statement of cash flows details how much money came into the organization and where it came from, as well as how much money the organization spent and where it went. Pay attention to the ratio of overhead and salaries expense to direct program expenses. Frugal nonprofits know how to operate lean, diverting as much money as possible to their programs.
- Browse the management's discussion and analysis section and the accompanying notes to gain insight into any unexplained items. This section describes any extraneous events that influenced financial statement items. The discussion and analysis may also detail plans for future expansion of services or any changes to the organization's top management team or strategic direction.
- Perform ratio analysis on financial statement items, and compare the results against competitors and industry standards. Profitability metrics, such as net profit margin and return on assets, are not as important when analyzing nonprofit financial statements. Focus on metrics of financial sustainability and cash flow, such as the cash flow coverage ratio and times interest earned.

SUMMARY

- A financial statement is an official document of the firm, which explores the entire financial information of the firm. The main aim of the financial statement is to provide information and understand the financial aspects of the firm.
- Financial statement analysis can be referred as a process of understanding the risk and profitability of a company by analyzing reported financial info, especially annual and quarterly reports.
- Financial analysis is the process of examining a company's performance in the context of its industry and economic environment in order to arrive at a decision or recommendation. Often, the decisions and recommendations addressed by financial analysts pertain to providing capital to companies—specifically, whether to invest in the company's debt or equity securities and at what price.
- An investor in debt securities is concerned about the company's ability to pay interest and to repay the principal lent. An investor in equity securities is an owner with a residual interest in the company and is concerned about the company's ability to pay dividends and the likelihood that its share price will increase.
- Earnings statements are useful in portraying the elements of profitability when details are given on sales or gross revenues, cost of goods sold, and certain expenses such as depreciation, maintenance, taxes, interest, and rents.
- Debates over proper form often hinge upon the debaters' ideas as to the probable way in which the reader is likely to think or react. Because statements are read for a variety of purposes, no single form can satisfy all persons. Adequate disclosure of material details enables informed and competent persons to derive the kinds of information that will serve their various needs.
- Demand and earnings fluctuate most where technology changes, style alters frequently, raw materials vary greatly in cost, or durability or luxury character causes irregular buying.

KNOWLEDGE CHECK

1. **Which of the following is not a reason financial analysis is useful to investors?**
 - a. Future trends can always be accurately predicted
 - b. Investors read financial statements either to monitor their current investments or to plan their future ones
 - c. Investors use financial statements analysis to assess the risk associated with their expected returns
 - d. Current position is the base on which future performance must be built
 - e. Past performance is often a good indicator of future performance
2. **In relation to a company, creditors are least concerned with:**
 - a. Its future share price
 - b. Its short-term liquidity
 - c. Its solvency
 - d. Its profitability
 - e. Creditors are concerned about all of the above
3. **In relation to a company, investors are least concerned with:**
 - a. Its profitability
 - b. Its solvency
 - c. Its future share price
 - d. Its short-term liquidity
 - e. Investors are concerned about all of the above
4. **Which of the following is not true of trend analysis? (Several possible answers)**
 - a. It uses changes in euro amount and percentage terms to identify patterns
 - b. It concentrates on the relative size of current assets
 - c. It examines changes over time
 - d. It concentrates on different geographic segments of production
 - e. It examines the relationships of percentage changes to each other

- 5. In order to have a smoothed rate of growth, we use:**
- a. Trends statements
 - b. Common-size statements
 - c. Financial ratios
 - d. CAGR
 - e. None of the above
- 6. Which of the following statements are true in relation to common-size statements analysis? (Several possible answers)**
- a. It uses changes in euro amount and percentage terms to identify patterns
 - b. It may concentrate on the relative size of current assets
 - c. It examines changes over time
 - d. It concentrates on different geographic segments of production
 - e. It may concentrate on the gross margin percentage
- 7. The difference between total current assets and total current liabilities is:**
- a. Trade working capital
 - b. Net assets
 - c. Operating working capital
 - d. Accounting working capital
 - e. None of the above
- 8. Low price for earnings ratio is result of**
- a. low riskier firms
 - b. high riskier firms
 - c. low dividends paid
 - d. high marginal rate

Check Your Result

1. (a)	2. (a)	3. (d)	4. (b)	5. (d)
6. (e)	7. (d)	8. (a)		

REVIEW QUESTIONS

1. What do you mean by financial statement?
2. Define the significance of analysis of financial statements.
3. Write the objectives of analysis of financial statements.
4. Explain the types of financial statement analysis.
5. Describe the importance of accurate financial statements for a business.
6. Differentiate between funds flow and cash flow statement.

CRITICAL QUESTION

1. Describe the different techniques of financial analysis and explain the limitations of financial analysis.

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4

CAPITAL STRUCTURE

“Capital structure is essentially concerned with how the firm decides to divide its cash flows into two broad components, a fixed component that is earmarked to meet the obligations toward debt capital and a residual component that belongs to equity shareholders.”

—P. Chandra.

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Explain capital structure: meaning, concept, importance and factors
- Understand theories of capital structure



KEY IDEAS

1. Capital structure is the proportion of debt and equity financing of a firm. It indicates how the company operation of a business is financed.
2. Debt finance is usually cheaper and preferred than equity finance. This is because debt finance is safer from a debt holder's point of view. Interest has to be paid before dividend.
3. Leverage can enhance company value to a certain degree when the investments of firms eventually succeed. Unfortunately, if the investment fails, and these companies are not able to pay their debtors, it may have to declare bankruptcy.
4. The modern theory of capital structure started with the seminar paper of Modigliani and Miller (1958). MM theorem states that in the absence of transaction costs, corporate income taxations, or other market imperfections, the value of firms are independent of its financial structure.

INTRODUCTION

Capital structure, amount and type of permanent capital invested in a business concern. A firm's capital structure includes all outstanding capital stock and surplus, as well as long-term creditor capital. Other items included in the capital structure are pension-fund liabilities, deferred taxes and other charges, and intermediate-term loans. Capital structures of firms and industries vary widely. The ideal capital structure is



Citation: <https://www.muhasibenews.com/wp-content/uploads/2017/06/anonimortak-2806.png>

one that provides sufficient capital for efficient and profitable operations, a maximum rate of return to the stockholders at a minimum of financial risk, and a minimum dilution of control.

It is often profitable to increase the proportion of debt in the firm's capital structure, because borrowed funds may earn more than their interest cost. This is known as "leverage" or "trading on the equity." In a capital structure of \$100,000, for example, of which \$50,000 represents bondholders' investment at an interest rate of 5% and \$50,000 represents equity, total earnings of \$10,000 would represent a return of 10 % on the total capital invested. The bondholders would receive \$2,500 as their 5 % interest, and the stockholders would receive the remainder, \$7,500, for a return of 15 % on their investment.



Citation: <https://www.valeo.com/wp-content/uploads/2016/11/ThinkstockPhotos-519831592-1.jpg>

The use of financial leverage involves a compromise between liquidity and earning power. Cash flows must be arranged to meet fixed payments on debt; the more sales and profits fluctuate, the more difficult is the task of the financial manager in meeting the cash outflow for interest and debt repayments. Companies with stable sales and profits are therefore more likely to use higher degrees of leverage, resulting in capital structures with 50 to 70 % senior capital (bonds and preferred stock). On the other hand, manufacturing and retailing companies have volatile earnings and sales and, when possible, use a much lower degree of financial leverage.



<https://www.youtube.com/watch?v=JCGb48rzo0s>

Debt is an amount of money borrowed by one party from another. Debt is used by many corporations and individuals as a method of making large purchases that they could not afford under normal circumstances.

CAPITAL STRUCTURE: MEANING, CONCEPT, IMPORTANCE AND FACTORS

A company's capital structure refers to its debt level relative to equity on the balance sheet. It is a snapshot of the amount and types of capital that a firm has access to, and what financing methods it has used to conduct growth initiatives such as research and development or acquiring assets. The more debt that a firm carries, the more risk it is perceived to carry. An ideal capital structure represents a balance of **debt** and equity on a balance sheet.



Citation: <http://capital-structure.blogspot.com/p/who-are-we.html>

There are various types of equity and debt that constitute a capital structure. Typically, the components that make up these two asset classes are bonds, preferred stock, and common stock. Bonds are a form of debt, and include loans that a company takes out with a financial institution or with investors. Debt is also considered leverage,

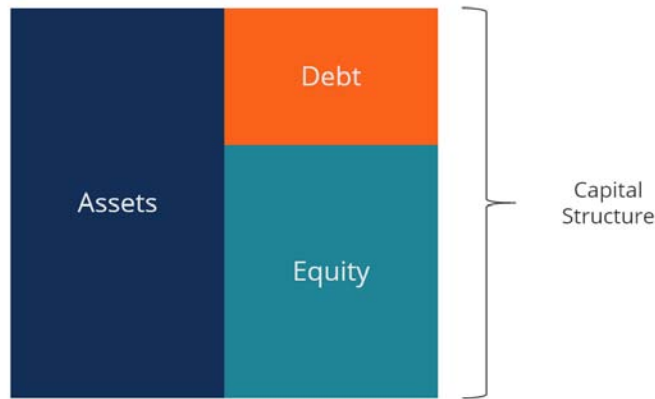
and when a company has too much debt on its balance sheet, it is said to be over-levered. On the equity side, common stock is the amount of shares held by common shareholders. These stockholders own an equity stake in the business and obtain voting rights for important company events. Preferred shareholders similarly obtain an equity stake in the business, but are not entitled to vote.

A preferred investor receives ongoing dividend payments from a company's net income, or profits, as do some common shareholders. Profits that a company does not distribute to shareholders through dividend payments but instead are reserved are known as retained earnings, and qualify as equity on a company's balance sheet. Any additional capital earned from a stock offering similarly adds to equity. Capital structure is what a company relies on to acquire the assets necessary to generate future sales and profits at the firm. In order for the financial capital structure to work efficiently, it will generate returns from the equity and debt that are higher than the cost of servicing that debt and equity. Costs associated with servicing debt and equity may include interest and principal payments to bondholders and dividend payments to shareholders.

Issuing debt tends to be a cheaper form of financing for companies versus equity issuance. Although debt holders are entitled to ongoing payments tied to a loan, the expectations for returns are not as high as they are for equity investors. This is because equity holders are taking more of a risk than debt holders. Therefore, the burden is on a company to constantly grow earnings and the stock price in order to retain equity shareholders. In the event of a bankruptcy, bondholders receive priority for a company's assets over equity holders.

Meaning of Capital Structure

Capital Structure refers to the amount of debt and/or equity employed by a firm to fund its operations and finance its assets. The structure is typically expressed as a debt-to-equity or debt-to-capital ratio. Debt and equity capital are used to fund a business' operations, capital expenditures, acquisitions, and other investments. There are tradeoffs firms have to make when they decide whether to raise debt or equity and managers will balance the two try and find the optimal capital structure.



Citation: <https://corporatefinanceinstitute.com/resources/knowledge/finance/capital-structure-overview/>

Capital Structure is referred to as the ratio of different kinds of securities raised by a firm as long-term finance. The capital structure involves two decisions:-

- a. Type of securities to be issued are equity shares, preference shares and long term borrowings (Debentures).
- b. Relative ratio of securities can be determined by process of capital gearing. On this basis, the companies are divided into two-
 - i. Highly geared companies - Those companies whose proportion of equity capitalization is small.
 - ii. Low geared companies - Those companies whose equity capital dominates total capitalization.

Capitalization is the recordation of a cost as an asset, rather than an expense. This approach is used when a cost is not expected to be entirely consumed in the current period, but rather over an extended period of time.

For instance - There are two companies A and B. Total capitalization amounts to be USD 200,000 in each case. The ratio of equity capital to total capitalization in company A is USD 50,000, while in company B, ratio of equity capital is USD 150,000 to total **capitalization**, i.e., in Company A, proportion is 25% and in company B, proportion is 75%. In such cases, company A is considered to be a highly geared company and company B is low geared company.

Definition of Capital Structure

Capital structure refers to a company's outstanding debt and equity. It allows a firm to understand what kind of funding the company uses to finance its overall activities and growth. In other words, it shows the proportions of senior debt, subordinated debt and equity (common or preferred) in the funding. The purpose of capital structure is to provide an overview of the level of the company's risk. As a rule of thumb, the higher the proportion of debt financing a company has, the higher its exposure to risk will be.



Citation: <https://thediwire.com/cetera-discloses-capital-structure-review-retains-goldman-sachs/>

Capital structure is commonly known as the debt-to-equity ratio. Capital structure is the mix of the long-term sources of funds used by a firm. It is made up of debt and equity securities and refers to permanent financing of a firm. It is composed of long-term debt, preference share capital and shareholders' funds.

Some of the important definitions are presented below:

- "Capital structure of a company refers to the make-up of its capitalization and it includes all long-term capital resources viz., loans, reserves, shares and bonds." —Gerstenberg.
- "Capital structure is the combination of debt and equity securities that comprise a firm's financing of its assets." —John J. Hampton.

- “Capital structure refers to the mix of long-term sources of funds, such as, debentures, long-term debts, preference share capital and equity share capital including reserves and surplus.” —I. M. Pandey.

Hence capital structure implies the composition of funds raised from various sources broadly classified as debt and equity. It may be defined as the proportion of debt and equity in the total capital that will remain invested in a business over a long period of time. Capital structure is concerned with the quantitative aspect. A decision about the proportion among these types of securities refers to the capital structure decision of an enterprise.

Let's take a moment to look at these two forms of capital a bit more closely.

Equity Capital

Equity capital refers to money put up and owned by the shareholders (owners). Typically, equity capital consists of two types:

- Contributed capital, which is the money that was originally invested in the business in exchange for shares of stock or ownership.
- Retained earnings, which represents profits from past years that have been kept by the company and used to strengthen the balance sheet or fund growth, acquisitions, or expansion.

Many consider equity capital to be the most expensive type of capital a company can utilize because its “cost” is the return the firm must earn to attract investment. A speculative mining company that is looking for silver in a remote region of Africa may require a much higher return on equity to get investors to purchase the stock than a firm such as Procter & Gamble, which sells everything from toothpaste and shampoo to detergent and beauty products.

Debt Capital

The debt capital in a company's capital structure refers to borrowed money that is at work in the business. The safest type is generally considered long-term bonds because the company has years, if not decades, to come up with the principal while paying interest only in the meantime.

Other types of debt capital can include short-term commercial paper utilized by giants such as Wal-Mart and General Electric that amount to billions of dollars in 24-hour loans from the capital markets to meet day-to-day working capital requirements such as payroll and utility bills. The cost of debt capital in the capital structure depends on the health of the company's balance sheet — a triple AAA rated firm is going to be able to borrow at extremely low rates versus a speculative company with tons of debt, which may have to pay 15 % or more in exchange for debt capital.

Aside from equity and debt capital, there are other forms of capital such as vendor financing where a company can sell goods before they have to pay the bill to the vendor, that can drastically increase return on equity but do not cost the company anything. This was one of the secrets to Sam Walton's success at Wal-Mart. He was often able to sell Tide detergent before having to pay the bill to Procter & Gamble, in effect, using PG's money to grow his retailer.

In the case of an insurance company, the policyholder "float" represents money that does not belong to the firm but that it gets to use and earn an investment on until it has to pay it out for accidents or medical bills, in the case of an auto insurer. The cost of other forms of capital in the capital structure varies greatly on a case-by-case basis and often comes down to the talent and discipline of managers.

Financial Structure

Financial structure is the mix of short-term liabilities, short-term debt, long-term debt, and equity that a business uses to finance its assets. A significant reliance on debt funding allows shareholders to achieve a higher return on investment, since there is less equity in the business. However, this financial structure can be risky, since the firm has a large debt obligation that must be paid. A firm positioned as an oligopoly or monopoly is best able to support such a leveraged financial structure, since its sales, profits and cash flows can be reliably predicted. Conversely, a business positioned in a highly competitive market cannot support a high degree of leverage, since it experiences volatile earnings and cash flows that could cause it to miss debt payments and trigger a bankruptcy filing. A business in this latter position needs to skew its financial structure in the direction of more equity, for which there is no payback requirement.

The term structure is used in business in several different ways. The term 'structure', invented from the field of engineering, and which means that the different parts of a building. The terms "governance," "business," and "legal," are all associated with their own "structures" for instance, referring to aspects of company set up and operation. Likewise, financial structure involves of three elements like assets, liabilities and capital. In short financial structure shows the pattern total financing and measures the extent to which total funds are available to finance total assets of the business. In simple word financial structure means total liabilities or financial structure means capital structure + current liabilities.

Difference between Capital Structure and Financial Structure

Funds are the basic need of every firm to fulfill long term and working capital requirement. Enterprise raises these funds from long term and short term sources. In this context, capital structure and financial structure are often used. Capital Structure covers

only the long term sources of funds, whereas financial structure implies the way assets of the company are financed, i.e. it represents the whole liabilities side of the Position statement, i.e. Balance Sheet, which includes both long term and long term debt and current liabilities.

Capital structure

Vs

Financial structure

Citation: <https://keydifferences.com/difference-between-capital-structure-and-financial-structure.html>

In other words, financial structure, is a broader concept than capital structure, or we can say that Capital Structure is a subdivision of Financial Structure. In this section, you will find all the substantial differences between capital structure and financial structure.

Comparison Chart

BASIS FOR COMPARISON	CAPITAL STRUCTURE	FINANCIAL STRUCTURE
Meaning	The combination of long term sources of funds, which are raised by the business is known as Capital Structure.	The combination of long term and short term financing represents the financial structure of the company.
Appear on Balance Sheet	Under the head Shareholders fund and Non-current liabilities.	The whole equities and liabilities side.
Includes	Equity capital, preference capital, retained earnings, debentures, long term borrowings etc.	Equity capital, preference capital, retained earnings, debentures, long term borrowings, account payable, short term borrowings etc.

One in another	The capital structure is a section of financial structure.	Financial structure includes capital structure.

Definition of Capital Structure

The combination of long-term sources of funds, i.e. equity capital, preference capital, retained earnings and debentures in the firm's capital is known as Capital Structure. It focuses on choosing such a proposal which will minimize the cost of capital and maximize the earnings per share. For this purpose a company can opt for the following capital structure mix:

- Equity capital only
- Preference capital only
- Debt only
- A mix of equity and debt capital.
- A mix of debt and preference capital.
- A mix of equity and preference capital.
- A mix of equity, preference and debt capital in different proportions.

There are certain factors which are referred while choosing the capital structure like, the pattern opted for capital structure should reduce the cost of capital and increase the returns, the capital structure mix should contain more of equity capital and less of debt to avoid the financial risk, it should provide liberty to the business and management to adapt itself according to the changes and so on.

Definition of Financial Structure

The mix of long term and short term funds employed by the company to procure the assets which are required for day to day business activities is known as Financial Structure. Trend Analysis and Ratio Analysis are the two tools used to analyze the financial structure of the company.

The composition of the financial structure represents the whole equity and liabilities side of the Balance Sheet, i.e. it includes equity capital, preference capital, retained earnings, debentures, short-term borrowings, account payable, deposits provisions, etc. The following factors are considered at the time of designing the financial structure:

- **Leverage:** Leverage can be both positive or negative, i.e. a modest rise in the EBIT will give a high rise to the EPS but simultaneously it increases the financial risk.
- **Cost of Capital:** The financial structure should focus on decreasing the cost of capital. Debt and preference share capital are cheaper sources of finance as compared to equity share capital.

- **Control:** The risk of loss and dilution of control of the company should be low.
- **Flexibility:** Any firm cannot survive if it has a rigid financial composition. So the financial structure should be such that when the business environment changes structure should also be adjusted to cope up with the expected or unexpected changes.
- **Solvency:** The financial structure should be such that there should be no risk of getting insolvent.

Key Differences between Capital Structure and Financial Structure

The following are the major differences between capital structure and financial structure:

- The capital composition of the company which includes only long-term funds raised is known as Capital Structure. The combination of long term and short term funds utilized by the company for acquiring resources is known as the financial structure.
- Capital Structure appears under the head Shareholders Fund and Non-current liabilities. Conversely, the entire equity and liabilities side shows the financial structure of the company.
- Capital Structure is a section of Financial Structure.
- Capital Structure includes equity capital, preference capital, retained earnings, debentures, long-term borrowings, etc. On the other hand, Financial Structure includes shareholder's fund, current and non-current liabilities of the company.

Capital Structure and Financial Structure are not contradictory to each other. Instead, they are inseparable. The optimum capital structure is when the company uses a mix of equity and debt financing that the value of the firm is maximized and side by side the cost of capital is also minimized.

Optimum Capital Structure

Optimum Capital Structure (OCM) refers to the relationship of debt and equity securities which maximize the value of the company's share on the stock exchange. The composite cost of capital is the least at optimum capital structure. At this capital structure the market price per share is maximum and cost of capital is minimum.

E. F. Brigham defines—"the optimum capital structure strikes that balance between risk and return which maximizes the price of the stock and simultaneously minimizes the firm's overall cost of capital."

Optimal capital structure can be defined as

that capital structure or combination of debt and equity that leads to the maximum value of the firm.

The optimal capital structure of a business is that blend of debt and equity financing being used that minimizes its weighted-average cost of capital while at the same time maximizing its market value. Debt financing is less expensive than equity financing, since the interest expense associated with debt is tax deductible, while dividend payouts are not tax deductible. This cost differential does not imply that the optimal capital structure should be comprised entirely of debt, since an excessive amount of debt increases the risk of bankruptcy, which lowers the market value of a business. Instead, the optimal structure involves a blend of lower-cost debt and a sufficient amount of higher-cost equity funding to mitigate the risk of being unable to pay back the debt. It may be difficult to find the exact point of optimization, so managers usually attempt to operate within a range of values.

If a business has highly variable cash flows, then it is less able to pay back any debt outstanding. In this situation, the optimal capital structure is likely to contain very little debt and a large amount of equity. Conversely, if a business has steady and consistent cash flows, then it can tolerate a much larger debt load; the resulting optimal capital structure contains a much higher percentage of debt. The capital structure is commonly measured with the debt-to-equity ratio. The ratio is usually plotted on a trend line to see how it is changing over time. It may also be compared to the same ratio for other businesses within the same industry, to see if company management is employing an unusual amount of debt within its capital structure.



Citation: <http://urexception.com/en/wp-content/uploads/2014/10/hiring-company-building-blocks.jpg>

Tax is a mandatory financial charge or some other type of levy imposed upon a taxpayer by a governmental organization in order to fund various public expenditures.

Estimating the Optimal Capital Structure

There are numerous ways in which a company's optimal capital structure can be estimated. the most commonly used ones are:

- *Method 1:* One method of estimating a company's optimal capital structure is utilizing the average or median capital structure of the principle companies engaged in the market approach. This approach is helpful as the appraiser is well aware about which companies are included in the analysis and the degree to which they are related to the subject company. However, this method features a limitation that fluctuations in market prices and the spread out nature of debt offerings and retirements might cause the actual capital structure of a principle company to be significantly different from the target capital structure.
- *Method 2:* This method is applied if the risk of a company did not change because of the nature of its capital structure, and a company would wish as much debt as possible, as the interest payments are **tax** deductible and debt financing is always cheaper than equity financing. The main objective of this method is determining the debt level at which the benefits of increased debt does not overshadow the increased risks and potential costs associated with an economically distressed company.

Features of Optimum Capital Structure

An optimum capital structure should have the following features:

- Optimum capital structure should maximize the earning per equity share.
- It should minimize the cost of financing.
- The risk must be managed and it should not lead the company to insolvency.
- It should be flexible and the composition of funds can be changed according to the requirements.

- It should help the company to generate cash flow in future.
- The company must be able to exercise control in its affairs.

Factors Determining Capital Structure

Capital structure is essential for any business for the purpose to function successfully. It indicates the composition of investment that involves a mixture of various sources through which long duration funds are raised that are needed by the business. The capital structure of the business rely on many factors such as legal requirements, tax rate, business growth, business size, nature, leverage etc.

A firm requires capital to continuously run its business. Hence, the financial structure decision is continuous one and has to be taken whenever a firm needs additional finances. Number of factors should be considered whenever a financial structure decision has to be taken. Some of the important factors are as under:

- Trading on Equity or Leverage
- Capital Gearing
- Cost of Capital
- Control
- Cash Flow position
- Flexibility
- Size of the Company

The factors that influence the capital structure are described below:

Trading On Equity or Leverage

Financial leverage is an important consideration in planning the capital structure of a company because of its effects on the earning per share. The trading on equity is a device to earn higher earnings on the share capital of a company. The word “equity” denotes the ownership of the company. Trading on equity means that the taking advantage of equity share capital to borrowed funds on reasonable basis. It refers to additional profits that equity shareholders earn because of issuance of debentures and preference shares. It is based on the thought that if the rate of dividend on preference capital and the rate of interest on borrowed capital is lower than the general rate of company’s earnings, equity shareholders are at advantage which means a company should go for a judicious blend of preference shares, equity shares as well as debentures. Trading on equity becomes more important when expectations of shareholders are high.

Capital Gearing

The different forms and proportion of securities to be issued is decided on the basis of policy decision regarding capital gearing. The ratio of equity share capital to preference share capital and loan capital is described as the “capital gearing”. If equity capital is more than the borrowed capital which is called low gearing and while equity capital is less than the borrowed capital which is called high gearing. Thus, capital gearing is important not only to the company, but also to prospective investors. It must be planned carefully because it affects company’s capacity to maintain an even distribution policy in the face of any difficult trading periods which may occur. Remarkably, distribution policies and the building-up of reserves as well as an even dividend policy are all affected by the company’s “gear ratio”.

Cost of Capital

The cost of capital is an important concept in formulating capital structure. The cost of a source of finance is the minimum return expected by its suppliers. The expected return depends on the degree of risk assumed by investors. Ignoring risk, debt is a cheaper source of funds than equity share capital. The preference share capital is also cheaper than equity capital, but not as cheap as debt. The capital structure should frame in a way it kept the total cost of capital to the minimum. So it is necessary for alternative capital structures to be compared. The term ‘cost of capital’ includes the interest or dividend payable plus the costs incurred in raising the capital such as legal and publicity costs etc.

Control

Normally in business there are existences of different groups of shareholders. They may think in different ways’ and due to difference of opinions all always try to keep maximum control in their hands. Certain securities have voting rights and therefore, through them control can be exercised. Hence, whenever requirement of additional funds are there, proper balance between the voting capital (the equity capital) and the nonvoting capital (retained earnings, preference shares,

Debenture is a type of debt instrument that is not secured by physical assets or collateral. Debentures are backed only by the general creditworthiness and reputation of the issuer.

debentures, loans) should be kept so as to maintain proper control. However, it is difficult to determine the ideal ratio. If management wishes to maximum control in their hands, in such situation company may use preference and **debenture** capital.

Cash Flow Position

One of the features of a sound financial structure is obscurantism which does not mean employing no debt or small amount of debt. Obscurantism is related to the fixed charges created by the use of debt of preference capital in the capital structure and firm's ability to generate cash to meet these fixed charges under any reasonably predictable adverse conditions. The fixed charges of a company include payment of interest, preference dividends and principal, and they depend on both the amount of loan securities and the terms of payment. Whenever a company thinks of raising additional debt, it should analyses its expected future cash flow to meet the fixed charges. Net cash inflows-fixed charges ratio (debt-servicing ratio) is one of the important ratios which should be examined at the time of planning the capital structure. In short, this feature shows that the earning capacity of business. If earning capacity is stable company may use of borrowed capital and if earning capacity is unstable company may not use of borrowed capital.

Flexibility

Flexibility means changing of mixture regarding capitals because a business cannot run in static affairs. When, the environment changes may happen accordingly capital requirement of a company change with circumstances and because of it the company should change in the capital for the survival. For this purpose flexibility in capital structure must be their means financial structure should be so devised that both increase and decrease in the proportion of various types of securities is possible whenever need arises. Such flexibility depends upon certain important factors like flexibility in service charges, restrictive clauses in loan agreements, process of redemption and debt capacity.

Size of Company

It also affects the financial structure of a company. If the firm belongs to large scale, it can manage the financial requirements with the help of internal sources. But if it is small size, they will go for external finance. It consists of high cost of capital. In short, some other concrete factors like nature of business, condition of money market, capital requirements, long-term interest of the company, nature of assets of the company, level of interest, attitude of investors, taxation policy of the government and legal restrictions must be kept in the mind while company framing the financial structure for the company.

Importance of Capital Structure Planning

For the real growth of the company the financial manager of the company should plan an optimum capital structure for the company. The optimum capital structure is one that maximize the market value of the firm. In practice the determination of the optimum capital structure is a formidable task and the manager has to perform this task properly, so that the ultimate objective of the firm can be achieved.



Citation: <http://www.svtuition.org/2010/05/importance-of-capital-structure.html>

There are significant variations among industries and companies within an industry in terms of capital structure. Since a number of factors influence the capital structure decision of a company, the judgment of the person making the capital structure decisions play a crucial part. A totally theoretical model cannot adequately handle all those factors, which affects the capital structure decision in practice. These factors are highly psychological, complex and qualitative and do not always follow accepted theory, since capital markets are not perfect and decision has to be taken under imperfect knowledge and risk.

An appropriate capital structure or target capital structure can be developed only when all those factors, which are relevant to the company's capital structure decision, are properly analyzed and balanced. The capital structure should be planed generally keeping in view the interest of the equity shareholders and financial requirements of the company. The equity shareholders being the owner of the company and the providers of risk capital (equity), would be concerned about the ways of financing a company's operations. However, the interest of other groups, such as employee,

customers, creditors, society and government, should be given reasonable consideration when the company lays down its objective in terms of the shareholders wealth maximization, it is generally compatible with the interest of other groups. Thus, while developing an appropriate capital structure for a company the finance manager should inter alia aim at maximizing the long-term market price per share. Theoretically, there may be precise point or range within which the market value per shares is maximum. In practice, for most companies within an industry there may be a range within which there would not be great differences in the market value per share. One way to get an idea of this range is to observe the capital structure patterns of companies vis-a-vis their market prices of share. The management of companies may fix its capital structure near the top of this range in order to make maximum use of favorable **leverage**, subject to other requirements such as flexibility, solvency, control and norms set by the financial institutions – The Securities and Exchange Board of India (SEBI) and Stock Exchanges.

The following are the guidelines of capital structure planning:

Leverage is an investment strategy of using borrowed money — specifically, the use of various financial instruments or borrowed capital — to increase the potential return of an investment.

Avail or Tax advantage of Debt

Interest on debt finance is a tax-deductible expense. Hence, finance scholars and practitioners agree that debt financing gives rise to tax shelter which enhances the value of the firm. What is the impact of this tax shelter on the value of the firm? In this 1963 paper Modigliani and Miller argued that the present value of the interest tax shield is $-t_c D$ where, t_c = corporate tax rate on a unit of marginal earnings and D = Debt financing.

Preserve Flexibility

The tax advantage of debt should not persuade one to believe that a company should exploit its debt capacity fully. By doing so, it loses flexibility. And loss of flexibility can erode shareholder value. Flexibility implies that the firm maintains reserve borrowing power to enable it to raise debt capital to respond to unforeseen changes in government policies, recessionary conditions in the market place, disruption in

supplies, decline in production caused by power shortage or labor market, intensification in competition, and, perhaps most importantly, emergence of profitable investment opportunities. Flexibility is a powerful defense against financial distress and its consequences which may include bankruptcy.

Ensure that the Total Risk Exposure is Reasonable

While examining risk from the point of view of the investor, a distinction is made between systematic risk (also referred to as the market risk or non-diversifiable risk) and unsystematic risk (also referred to as the non-market risk or diversifiable risk).

Business Risk refers to the variability of earnings before interest and taxes. It is influenced by the following factors:

- **Demand Variability-** Other things being equal, the higher the variability of demand for the products manufactured by the firm, the higher is its business risk.
- **Price Variability-** A firm which is exposed to a higher degree of volatility in the prices of its products is, in general, characterized by a higher degree of business risk in comparison with similar firms which are exposed to a lesser degree of volatility in the prices of their products.
- **Variability in Input Prices-** When input prices are highly variable, business risk tends to be high.

Subordinate Financial Policy to Corporate Strategy

Financial Policy and Corporate Strategy are often not integrated well. This may be because financial policy originates in the capital market and corporate strategy in the product market.

Mitigate Potential agency Costs

Due to separation of ownership and control in modern corporations, agency problems arise. Shareholders scattered and dispersed as they are not able to organize themselves effectively. Since agency costs are borne by shareholders and the management, the financial strategy of a firm should seek to minimize these costs. One way to minimize agency costs is to employ an external agent who specializes in low cost monitoring. Such an agent may be a lending organization like a commercial bank (or a term-lending institution).



<https://www.youtube.com/watch?v=QAeqP5UnGgk>

THEORIES OF CAPITAL STRUCTURE

In financial management, capital structure theory refers to a systematic approach to financing business activities through a combination of equities and liabilities. Competing capital structure theories explore the relationship between debt financing, equity financing, and the market value of the firm.



Citation: <https://henrykotula.com/tag/capital-structure/>

In practice it is difficult to specify an optimal capital structure—indeed, managers even feel uncomfortable about specifying an optimal capital structure range. Thus, financial managers worry primarily about whether their firms are using too little or too much debt, not about the precise optimal amount of debt. Even if a firm's actual capital structure varies widely from the theoretical optimum, this capital structure decisions are secondary in importance to operating decisions, especially those relating to **capital budgeting** and the strategic direction of the firm. The four important theories of capital structure are:

- Net Income Approach
- Net Operating Income Approach
- The Traditional Approach
- Modigliani and Miller Approach

Different kinds of theories have been propounded by different researchers to explain the relationship between capital structures.

Capital budgeting is the process in which a business determines and evaluates potential large expenses or investments.

Net Income Approach

Net Income theory was introduced by David Durand. According to this approach, the capital structure decision is relevant to the valuation of the firm. This means that a change in the financial leverage will automatically lead to a corresponding change in the overall cost of capital as well as the total value of the firm. According to NI approach, if the financial leverage increases, the weighted average cost of capital decreases and the value of the firm and the market price of the equity shares increases. Similarly, if the financial leverage decreases, the weighted average cost of capital increases and the value of the firm and the market price of the equity shares decreases.

Assumptions of NI approach:

- There are no taxes
- The cost of debt is less than the cost of equity.
- The use of debt does not change the risk perception of the investors

According to this approach, a firm can minimize the weighted average cost of capital and increase the value of the firm as well as market price of equity shares by using debt financing to the maximum possible extent. A higher debt content in the capital structure means high financial leverage and this results in decline in the overall or weighted average cost of capital. This result in increases in the value of the firm and also increases in the value of the equity shares. In an opposite situation, the reverse conditions prevail.

Net Operating Income Approach

This theory as suggested by Durand is another extreme of the effects of leverage on the value of the firm. It is diametrically opposite to the net income approach. Accordingly to this approach, change in the capital structure of a company does not affect the market value of the firm and the overall cost of capital remains constant irrespective of the method of financing. It implies that the overall cost of capital remains the same whether the debt-equity mix is 50:30 or 20:80 or 0:100. Thus, there is nothing as an optimal capital structure and every capital structure is the optimum capital structure.

Net Operating Income Approach was also suggested by Durand. This approach is of the opposite view of Net Income approach. This approach suggests that the capital structure decision of a firm is irrelevant and that any change in the leverage or debt will not result in a change in the total value of the firm as well as the market price of its shares. This approach also says that the overall cost of capital is independent of the degree of leverage.



Citation: [https://www.thebalance.com/thmb/oGgdqPF2EKCmwrk2s6NM5hwJZTc=/2124x1412/filters:fill\(auto,1\)/stocks-5a4d60004e46ba003671da28.jpg](https://www.thebalance.com/thmb/oGgdqPF2EKCmwrk2s6NM5hwJZTc=/2124x1412/filters:fill(auto,1)/stocks-5a4d60004e46ba003671da28.jpg)

Features of NOI approach:

1. At all degrees of leverage (debt), the overall capitalization rate would remain constant. For a given level of Earnings before Interest and Taxes (EBIT), the value of a firm would be equal to EBIT/overall capitalization rate.
2. The value of equity of a firm can be determined by subtracting the value of debt from the total value of the firm. This can be denoted as follows:

$$\text{Value of Equity} = \text{Total value of the firm} - \text{Value of debt}$$

3. Cost of equity increases with every increase in debt and the weighted average cost of capital (WACC) remains constant. When the debt content in the capital structure increases, it increases the risk of the firm as well as its shareholders. To compensate for the higher risk involved in investing in highly levered company, equity holders naturally expect higher returns which in turn increases the cost of equity capital.

Example:

Let us assume that a firm has an EBIT level of \$50,000, cost of debt 10%, the total value of debt \$200,000 and the WACC is 12.5%. Let us find out the total value of the firm and the cost of equity capital (the equity capitalization rate).

Solution:

$$\text{EBIT} = \$50,000$$

$$\text{WACC (overall capitalization rate)} = 12.5\%$$

$$\text{Therefore, total market value of the firm} = \text{EBIT}/K_o \Rightarrow \$50,000/12.5\% \Rightarrow \$400,000$$

$$\text{Total value of debt} = \$200,000$$

$$\begin{aligned} \text{Therefore, total value of equity} &= \text{Total market value} - \text{Value of debt} \\ &\Rightarrow \$400,000 - \$200,000 \Rightarrow \$200,000 \end{aligned}$$

$$\text{Cost of equity capital} = \text{Earnings available to equity holders} / \text{Total market value of equity shares}$$

$$\begin{aligned} \text{Earnings available to equity holders} &= \text{EBIT} - \text{Interest on debt} \\ &\Rightarrow \$50,000 - (10\% \text{ on } \$200,000) \Rightarrow \$30,000 \end{aligned}$$

$$\text{Therefore, cost of equity capital} = \$30,000 / \$200,000 \Rightarrow 15\%$$

Verification of WACC:

$$10\% \times (\$200,000 / \$400,000) + 15\% \times (\$200,000 / \$400,000) \Rightarrow 12.5\%$$

Effect of change in Capital structure (to prove irrelevance)

Let us now assume that the leverage increases from \$200,000 to \$300,000 in the firm's capital structure. The firm also uses the proceeds to re-purchase its equity stock so that the market value of the firm remains the same at \$400,000.

$$\text{EBIT} = \$50,000$$

$$\text{WACC} = 12.5\% \text{ (overall capitalization rate)}$$

$$\text{Total market value of the firm} = \$50,000 / 12.5\% \Rightarrow \$400,000$$

$$\text{Less: Total market value of debt} \Rightarrow \$300,000$$

$$\text{Therefore, market value of equity} = \$400,000 - \$300,000 \Rightarrow \$100,000$$

Equity-capitalization rate = $(\$50,000 - [10\% \text{ on } \$300,000]) / \$100,000$
 $\Rightarrow 20\%$

Overall cost of capital =

$10\% \times \$300,000 / \$400,000 + 20\% \times \$100,000 / \$400,000 \Rightarrow 12.5\%$

The above example proves that a change in the leverage does not affect the total value of the firm, the market price of the shares as well as the overall cost of capital.

The Traditional Approach

The traditional approach, also known as intermediate approach, is a compromise between the two extremes of net income approach and net operating income approach. According to this theory, the value of the firm can be increased initially or the cost of capital can be decreased by using more debt as the debt is a cheaper source of funds than equity. Thus, optimum capital structure can be reached by a proper debt equity mix. Beyond a particular point, the cost of equity increases because increased debt increases the financial risk of the equity shareholders. The advantage of cheaper debt at this point of capital structure is offset by increased cost of equity. After this there comes a stage, when the increased cost of equity cannot be offset by the advantages of low cost debt.

The Net Income theory and Net Operating Income theory stand in extreme forms. Traditional approach stands in the midway between these two theories. This Traditional theory was advocated by financial experts Ezra Solomon and Fred Weston. According to this theory a proper and right combination of debt and equity will always lead to **market value** enhancement of the firm. This approach accepts that the equity shareholders perceive financial risk and expect premiums for the risks undertaken. This theory also states that after a level of debt in the capital structure, the cost of equity capital increases.

Market value is the price an asset would fetch in the marketplace. Market value is also commonly used to refer to the market capitalization of a publicly-traded company, and is obtained by multiplying the number of its outstanding shares by the current share price.



Citation: https://www.ft.com/__origami/service/image/v2/images/raw/http://prod-upp-image-read.ft.com/80023d90-ec94-11e6-ba01-119a44939bb6?source=next&fit=scale-down&quality=highest&width=1440

Example:

Let us consider an example where a company has 20% debt and 80% equity in its capital structure. The cost of debt for the company is 9% and the cost of equity is 14%. According to the traditional approach the overall cost of capital would be:

The Net Income theory and Net Operating Income theory stand in extreme forms. Traditional approach stands in the midway between these two theories. This Traditional theory was advocated by financial experts Ezra Solomon and Fred Weston. According to this theory a proper and right combination of debt and equity will always lead to market value enhancement of the firm. This approach accepts that the equity shareholders perceive financial risk and expect premiums for the risks undertaken. This theory also states that after a level of debt in the capital structure, the cost of equity capital increases.

$$\begin{aligned} \text{WACC} &= (\text{Weight of debt} \times \text{cost of debt}) + (\text{Weight of equity} \times \text{cost of equity}) \\ &\Rightarrow (20\% \times 9\%) + (80\% \times 14\%) \\ &\Rightarrow 1.8 + 11.2 \Rightarrow 13\% \end{aligned}$$

If the company wants to raise the debt portion in the capital structure to be 50%, the cost of debt as well as equity would increase due to the increased risk of the

company. Let us assume that the cost of debt rises to 10% and the cost of equity to 15%. After this scenario, the overall cost of capital would be:

$$WACC = (50\% \times 10\%) + (50\% \times 15\%)$$

$$\Rightarrow 5 + 7.5 \Rightarrow 12.5\%$$

In the above case, although the debt-equity ratio has increased, as well as their respective costs, the overall cost of capital has not increased, but has decreased. The reason is that debt involves lower cost and is a cheaper source of finance when compared to equity. The increase in specific costs as well the debt-equity ratio has not offset the advantages involved in raising capital by a cheaper source, namely debt.

Now, let us assume that the company raises its debt percentage to 70%, thereby pushing down the equity portion to 30%. Due to the increased and over debt content in the capital structure, the firm has acquired greater risk. Because of this fact, let us say that the cost of debt rises to 15% and the cost of equity to 20%. In this scenario, the overall cost of capital would be:

$$WACC = (70\% \times 15\%) + (30\% \times 20\%)$$

$$\Rightarrow 10.5 + 6 \Rightarrow 16.5\%$$

This decision has increased the company's overall cost of capital to 16.5%.

The above example illustrates that using the cheaper source of funds, namely debt, does not always lower the overall cost of capital. It provides advantages to some extent and beyond that reasonable level, it increases the company's risk as well the overall cost of capital. These factors must be considered by the company before raising finance via debt.

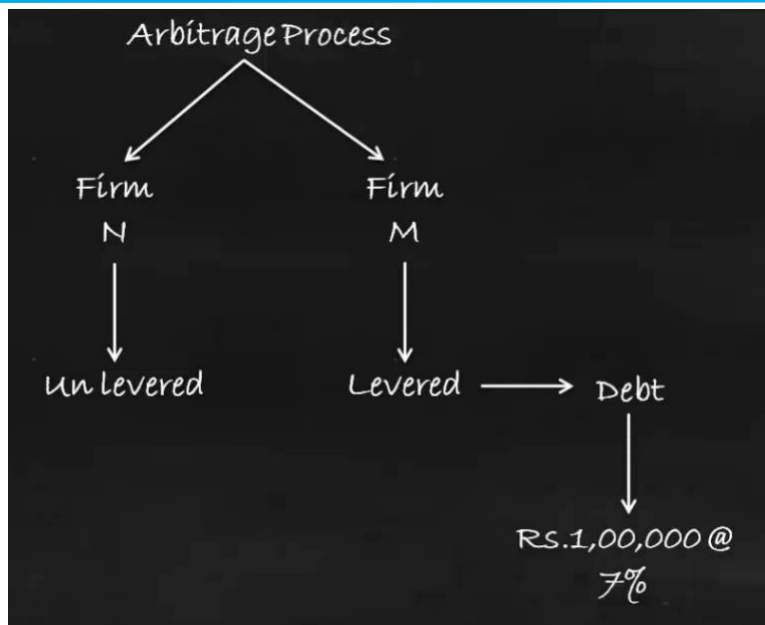
Modigliani and Miller Approach

M & M hypothesis is identical with the net opening income approach if taxes are ignored. However, when corporate taxes are assured assumed to exist, their hypotheses are similar to the Net Income Approach.

- In the absence of taxes. (Theory of Irrelevance): The theory proves that the cost of capital is not affected by changes in the capital structure or say that the debt equity mix is irrelevant in the determination of the total value of a firm. The reason argued is that though debt is cheaper to equity, with increased use of debt as source of finance, the cost of equity increase. This increase in cost of equity offsets the advantage of the low cost of debt. Thus, although the financial leverage affects the cost of equity, the overall cost of capital remains constant. The theory emphasizes the fact that a firm's opening income is a determinant of its total value.

- When the corporate taxes are assumed to exist. (Theory of Relevance): Modigliani and Miller have recognized that the value of the firm will increase or cost of capital will decrease with the use of debt on account of deductibility of interest charges for tax purpose. This, the optimum capital structure can be achieved by maximizing the debt mix in the equity of a firm.

Modigliani Miller approach, popularly known as the MM approach is similar to the Net operating income approach. The MM approach favors the Net operating income approach and agrees with the fact that the cost of capital is independent of the degree of leverage and at any mix of debt-equity proportions. The significance of this MM approach is that it provides operational or behavioral justification for constant cost of capital at any degree of leverage. Whereas, the net operating income approach does not provide operational justification for independence of the company's cost of capital.



Citation: <https://i.ytimg.com/vi/L4xtKeWaIHM/maxresdefault.jpg>

Basic Propositions of MM approach:

- At any degree of leverage, the company's overall cost of capital (k_o) and the Value of the firm (V) remains constant. This means that it is independent of the capital structure. The total value can be obtained by capitalizing the operating earnings stream that is expected in future, discounted at an appropriate discount rate suitable for the risk undertaken.

- The cost of capital (k_e) equals the capitalization rate of a pure equity stream and a premium for financial risk. This is equal to the difference between the pure equity capitalization rate and k_i times the debt-equity ratio.
- The minimum cut-off rate for the purpose of capital investments is fully independent of the way in which a project is financed.

Assumptions of MM approach:

- Capital markets are perfect.
- All investors have the same expectation of the company's net operating income for the purpose of evaluating the value of the firm.
- Within similar operating environments, the business risk is equal among all firms.
- 100% dividend payout ratio.
- An assumption of "no taxes" was there earlier, which has been removed.

Arbitrage Process

Arbitrage process is the operational justification for the Modigliani-Miller hypothesis. Arbitrage is the process of purchasing a security in a market where the price is low and selling it in a market where the price is higher. This results in restoration of equilibrium in the market price of a security asset. This process is a balancing operation which implies that a security cannot sell at different prices. The MM hypothesis states that the total value of homogeneous firms that differ only in leverage will not be different due to the arbitrage operation. Generally, investors will buy the shares of the firm that's price is lower and sell the shares of the firm that's price is higher. This process or this behavior of the investors will have the effect of increasing the price of the shares that is being purchased and decreasing the price of the shares that is being sold. This process will continue till the market prices of these two firms become equal or identical. Thus the **arbitrage** process drives the value of two homogeneous companies to equality that differs only in leverage.

Arbitrage is the process of exploiting differences in the price of an asset by simultaneously buying and selling it.

Limitations of MM hypothesis:

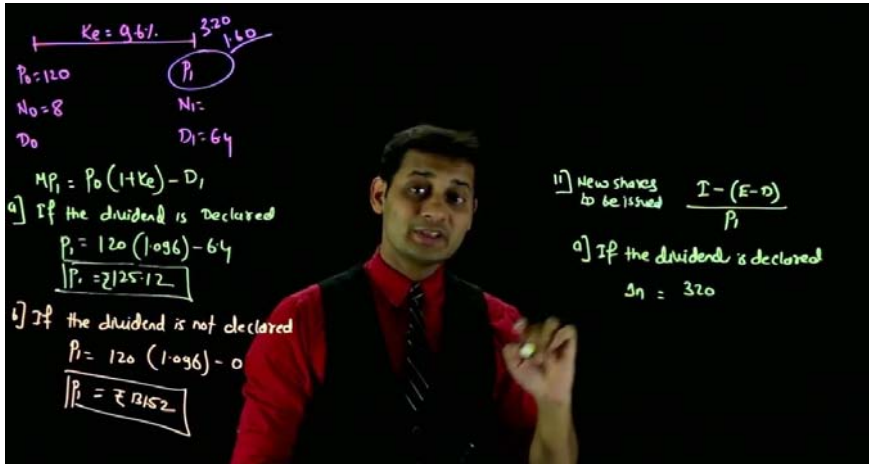
- Investors would find the personal leverage inconvenient.
- The risk perception of corporate and personal leverage may be different.
- Arbitrage process cannot be smooth due the institutional restrictions.
- Arbitrage process would also be affected by the transaction costs.
- The corporate leverage and personal leverage are not perfect substitutes.
- Corporate taxes do exist. However, the assumption of “no taxes” has been removed later.

Modigliani and Miller’s Propositions in Finance

Modigliani & Miller’s revelations on the impact of capital structure on a company’s value and cost of equity was path breaking in the world of finance. The corporate finance is a specific area of finance dealing with the financial decisions corporations make and the tools as well as analysis used to make these decisions. The discipline as a whole may be divided among long-term and short-term decisions and techniques with the primary goal being maximizing corporate value while managing the firm’s financial risks. Capital investment decisions are long-term choices that investment with equity or debt, and the short-term decisions deals with the balance of current assets and current liabilities which is managing cash, inventories, and short-term borrowing and lending. Corporate finance can be defined as the theory, process and techniques that corporations use to make the investing, financing and dividend decisions that ultimately contribute to maximizing corporate value. Thus, a corporation will first decide in which projects to invest, then it will figure out how to finance them, and finally, it will decide how much money, if any, to give back to the owners. All these three dimensions which are investing, financing and distributing dividends are interrelated and mutually dependent.

The capital structure decision is one of the most fundamental issues in corporate finance. The capital structure of a company refers to a combination of debt, preferred stock, and common stock of finance that it uses to fund its long-term financing. Equity and debt capital are the two major sources of long-term funds for a firm. The theory of capital structure is closely related to the firm’s cost of capital. As the enterprises to obtain funds need to pay some costs, the cost of capital in the investment activities is also the main consideration of rate of return. The weighted average cost of capital (WACC) is the expected rate of return on the market value of all of the firm’s securities. WACC depends on the mix of different securities in the capital structure; a change in the mix of different securities in the capital structure will cause a change in the WACC. Thus, there will be a mix of different securities in the capital structure at which WACC will be the least. The decision regarding the capital structure is based on the

objective of achieving the maximization of shareholders wealth. With regard to the capital structure of the theoretical basis, most well-known theory is Modigliani-Miller theorem of Franco Modigliani and Merton H. Miller. Yet the seeming simple question as to how firms should best finance their fixed assets remains a contentious issue.



Citation: <https://i.ytimg.com/vi/gHNfN5-oLUA/maxresdefault.jpg>

Modigliani-Miller Proposition I

The Modigliani-Miller Proposition I Theory (MM I) states that under a certain market price process, in the absence of taxes, no transaction costs, no asymmetric information and in an perfect market, the cost of capital and the value of the firm are not affected by the changed in capital structure. The firm's value is determined by its real assets, not by the securities it issues. In other words, capital structure decisions are irrelevant as long as the firm's investment decisions are taken as given.

The Modigliani and Miller explained the theorem was originally proven under the assumption of no taxes. It is made up of two propositions that are (i) the overall cost of capital and the value of the firm are independent of the capital structure. The total market value of the firm is given by capitalizing the expected net operating income by the rate appropriate for that risk class. (ii) The financial risk increase with more debt content in the capital structure. As a result, cost of equity increases in a manner to offset exactly the low cost advantage of debt. Hence, overall cost of capital remains the same.

The assumptions of the MM theory are:

- There is a perfect capital market. Capital markets are perfect when
 - investors are free to buy and sell securities
 - investors can trade without restrictions and can borrow or lend funds on the same terms as the firms do
 - investors behave rationally
 - investors have an equal access to all relevant information
 - capital markets are efficient
 - no costs of financial distress and liquidation
 - there are no taxes
- Firms can be classified into homogeneous business risk classes. All the firms in the same risk class will have the same degree of financial risk.
- All investors have the same view for the investment, profits and dividends in the future; they have the same expectation of a firm's net operating income.
- The dividend payout ration is 100%, which means there are no retained earnings.

In the absence of tax world, base on MM Proposition I, the value of the firm is unaffected by its capital structure. In other words, regardless of whether a company has liabilities, the total risk of its securities holders will not change even the capital structure is changed. As the weighted average cost of capital unchanged, so must the same as the total value of the company. That is $V_L = V_U = \text{EBIT}/\text{equity}$, where V_L is the value of a levered firm = price of buying a firm that is composed of some mix of debt and equity, V_U is the value of an unlevered firm = price of buying a firm composed only of equity and EBIT is earnings before interest and tax. Whether or not the company has loans or the loans for high or low,

Firm is an organization which sells or produces something or which provides a service which people pay for.

investors are all accessible through the following two kinds of investment on their own to create the desired type of earning.

- direct invested in the company's stock borrowing
- if shares of levered firms are priced too high, investors will try to take advantage of borrowing on their own and use the money to buy shares in unlevered firms. The use of debt by the investors is known as homemade leverage.

The investors of homemade leverage can obtain the same return as the levered firms, therefore, for investors; the value of the firm is not affected by debt-equity mix.

The MM Proposition I assumptions are quite unrealistic, there have some implications,

- Capital structure is irrelevant to shareholder wealth maximization.
- The value of the firm is determined by the firm's capital budgeting decisions.
- Increasing the extent to which a firm relies on debt increases both the risk and the expected return to equity – but not the price per share.

Based on the inadequacy of MM Proposition I, Franco Modigliani and Merton H. Miller revised their theory in 1963, which is MM Proposition II.

Modigliani-Miller Proposition II

The Modigliani-Miller Proposition II Theory (MM II) defines cost of equity as a linear function of the firm's debt/equity-ratio. According to them, for any firm in a given risk class, the cost of equity is equal to the constant average cost of capital plus a premium for the financial risk, which is equal to debt/equity ratio times the spread between average cost and cost of debt. Also Modigliani and Miller recognized the importance of the existence of corporate taxes. Accordingly, they agreed that the value of the firm will increase or the cost of capital will decrease with the use of debt due to tax deductibility of interest charges. Thus, the value of corporation can be achieved by maximizing debt component in the capital structure. This theory of capital structure for the study provided an important and analytical framework. According to this approach, value of a firm is $V_L = V_U = \frac{EBIT(1-T)}{r_{equity}} + TD$ where TD is tax savings. MM Proposition II is assuming that the tax shield effect of each is the same, and continued in sight. Leverage firms are increased in interest expense due to reduced tax liability, has also increased the allocation to the shareholders and creditors of the cash flow. The above formula can be deduced from the company debt the more the greater the tax saving benefits, the greater the value of the company. The revised capital structure of the MM Proposition II, pointed out that the existence of tax shield in a perfect capital market conditions cannot be reached, in an imperfect financial market, the capital structure changes will affect the company's value. Therefore, the value and cost of capital of corporation with the capital structure changes in different leverage, the value of the levered firm will exceed the value of the unlevered firm.

MM Proposition theory suggests that the higher the debt ratio is more favorable to corporate, but though borrowing adds an interest tax shield it may lead to costs of financial distress. Financial distress occurs when promises to creditors are broken or honored with difficulty. Financial distress may lead to bankruptcy. The trade-off theory of capital structure theory in MM based on the added risk of bankruptcy and further improves the capital structure theory, to make it more practical significance. A firm that follows the trade-off theory sets a target debt to value ratio and then gradually moves towards the target. The target is determined by balancing the tax benefits of using debt against costs of financial distress that rise at an increasing rate with the use of leverage. It so predicts moderate amount of debt as optimal. But there is evidence that the most profitable firm in an industry tend to borrow the least, while their probability of entering in financial distress seems to be very low. This fact contradicts the theory because if the distress risk is low, an increase of debt has a favorable tax effect. Under the trade-off theory, high profits should mean more debt-servicing capacity and more taxable income to shield and therefore should result in a higher debt ratio.

Evaluating a Company's Capital Structure using Ratios

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A business organization may be financially sound today but it may lose strength tomorrow because of losses. Therefore it is necessary to maintain a judicious balance between the owned capital and borrowed capital. The following ratios have been calculated to analyze the capital structure of a company.



Citation: <https://learn.g2crowd.com/hubfs/Stock%20images/Pads%20with%20color%20diagrams%20and%20color%20shining%20on%20background.jpeg>

Capital Gearing Ratio

Capital Gearing Ratio is one of the ratios of miscellaneous group, which measures the fixed income bearing securities which consists of preference share capital, debentures and long term loans to equity capital. A company is said to be highly geared if the fixed income bearing securities are more than the equity capital in the capital structure. On the other hand, company is said to be less geared if the equity capital is high than the fixed income securities.

Capital Gearing Ratio of an organization measures the relationship between equity share capital to preference capital and loan capital. 'Capital gearing' refers to the ratio between the variable cost bearing capital and fixed cost bearing capital of the organization and helps to frame the capital structure of the organization. Capital gearing may be of three types:

- High Gearing Capital, which indicates the excess of interest bearing long-term finance over the equity funds;
- Low Gearing Capital, which indicates the excess of equity funds over the interest bearing long-term finance; and
- Evenly Geared, which indicates the equality between the interest bearing long-term finance and equity funds.

As regards the role of capital gearing in the successful operation of the organization, it is as significant as the use of gears in the speed of an automobile. Just as gears are used in an automobile for maintaining the speed because an automobile starts at low gear and when it start running fast, in the same way when an organization is incorporated, it is begun with more equity capital and less interest bearing finance. But as the business moves ahead, fixed cost bearing finance such as preference capital, debentures and term loans etc., increases and the equity capital either remains constant or increases at a very low speed. High gearing may remain beneficial only when profits are huge and the interest burden fall on profits. Capital gearing is studied with the help of the following formula:

Cost is usually a monetary valuation of (1) effort, (2) material, (3) resources, (4) time and utilities consumed, (5) risks incurred, and (6) opportunity forgone in production and delivery of a good or service.

Capital Gearing = Variable cost bearing capital / Fixed cost bearing capital

Here variable **cost** bearing capital signifies the amount of equity capital plus the amount of retained earnings and other undistributed profits minus intangible assets. Fixed cost bearing capital includes debentures and long-term loans.

Current Liabilities to Net worth Ratio

Current Liabilities to Net worth Ratio measures the extent of contribution of short-term creditors and owners in the capital structure of an organization. The lower ratio infers that sufficient funds have been provided by the owners; whereas the higher ratio indicates lack of sufficiency in owners' funds. The ratio is worked out by dividing the total current liabilities by the amount of net worth of the organization. A standard norm suggested for this ratio is 35%. However, a ratio of even 30 % or more is taken as satisfactory. The ratio of current liabilities to net worth has been worked with the help of the following formula:

Current Liabilities to Net Worth Ratio = Current Liabilities & Provisions / Net worth

Proprietary Ratio

Proprietary Ratio throws light on the extent of shareholders' funds to total assets of the organization. A high proprietary ratio infers that the owners have provided funds for the organization and/or source of funds is through ploughing back of profits and the organization is less dependent on outside sources for assets. The closer is the ratio to 100 %, the greater is the financial soundness of the company. A higher ratio suggests a sound capital structure of the company by virtue of greater margin of shareholders' funds against outside source of finance and Margin of Safety for the creditors is greater. A low ratio, on the other hand, indicates a smaller amount of shareholders' funds in comparison with outside borrowed funds invested in total assets. Proprietary ratio is completed with the help of the following formula:

Proprietary Ratio = Proprietors Fund / Total Assets

Fixed Assets to Net worth Ratio

Fixed Assets to Net worth Ratio highlights the extent of fixed assets financed by owners of the organization. A ratio lower than 100 infers that the net worth has exceeded the fixed assets; whereas a ratio higher than 100 means that fixed assets have exceeded net worth and part of fixed assets and all current assets are being financed by outsiders. The funds provided by owners should be adequate not only to finance entire fixed assets requirements but also to finance part of current assets. If all the funds of the owners are employed in fixed assets, the organization will have no permanent funds for financing its working capital. Thus, it can be observed that the organization's

financial position will be favorable in case the ratio is lower. The standard norm of this ratio is 65 % for an industrial organization. However, if the nature of the organization is distributive or servicing than a lower ratio is taken as a satisfactory norm. The ratio is calculated with the help of the following formula:

$$\text{Fixed Assets to Net Worth Ratio} = [\text{Fixed Assets (Net)} / \text{Net Worth}] \times 100$$

Fixed Assets to Long Term Debt Ratio

Fixed assets to long-term debt ratio analyses the security provided to long term liabilities. Generally, long-term borrowers give loans to organization, against the security of the fixed assets of the organization. The debenture holders have a floating charge on fixed assets of the company while other may demand mortgage of any of the fixed assets. This ratio also indicates whether additional borrowed funds may be obtained by using the same security or not. The ratio is worked out by dividing fixed assets by long-term borrowings of the company with the help of the following formula:

$$\text{Fixed Assets to Long Term Debt Ratio} = \text{Fixed Assets} / \text{Long Term Debts}$$

The greater the ratio the better will be the security of long-term debts.

Debt-Equity Ratio

This ratio indicates the soundness of the configuration of the Debt-Equity mix. A proper mix of debt and equity helps improving the rate of capital formation during the long period of time. Analysis of this ratio is made to see the gearing of the capital and in finding out the permanent liability of the organization in comparisons with owners' fund.

This ratio can be found by dividing the long term debt by shareholder's equity. This ratio is generally represented in terms of percentages. Long term debt includes all borrowings not repayable before the completion of five year period from the date of borrowings. For the purpose of calculation of this ratio the term shareholders' equity includes share capital, reserves and surplus minus miscellaneous expenses. This ratio can be expressed thus:

$$\text{Debt-Equity Ratio} = \text{Debt} / \text{Equity}$$

The purpose of the ratio is to find out the amount of capital supplied to a business venture by the owners and also of asset "cushion" available to creditors on insolvency. To repeat, the generally accepted standard of this ratio is 1:1. Theoretically, the higher are the interests of the proprietors as compared with that of creditors, the more concrete would be the financial conditions of a business. Significantly, that ratio holds the same importance as the current ratio in the analysis of short term financial position.

Interest Coverage Ratio

Interest cover is nothing but profit cover of interest. In the words of Brigham. "The times-interest earned ratio is determined by dividing earnings before interest and taxes (EBIT) by the interest charges." It is one of the most conventional coverage ratio used to test the enterprise's debt servicing capacity. Greater the cover better is the position of the debenture holders or loan creditors regarding possibility of timely payment of interest.

Shareholder is an individual or institution (including a corporation) that legally owns one or more shares of stock in a public or private corporation.

The ratio indicates the extent, to which the earning may fall without causing any embarrassment to the enterprise regarding the payment of the interest charges. If the times covered falls then the risk of enterprise's failure increase. According to Wright, "its basis as a measurement tool is that, as the times covered declines, the risk of failures increases." A high ratio is desirable, but too high ratio indicates that the enterprise is very conservative in using debt, and it is not using credit to the best advantage of **shareholders**.

Interest Coverage Ratio = Interest / Profit before Interest and Tax



Citation: https://images.ctfassets.net/6px19mtg14gc/6O30nKhtbUg8GU6gEiySKy/a3a84ac3ede2f10653b514de3572ec23/Credit_union.jpg

Advantages and Disadvantages of Financing Options

Both debt and equity financing offer small businesses a number of advantages and disadvantages. The key for small business owners is to evaluate their company's particular situation and determine its optimal capital structure. As Eugene F. Brigham explained in *Fundamentals of Financial Management*, "The optimal capital structure is the one that strikes a balance between risk and return and thereby maximizes the price of the stock and simultaneously minimizes the cost of capital."

- The primary advantage of debt financing is that it allows the founders to retain ownership and control of the company. In contrast to equity financing, the entrepreneurs are able to make key strategic decisions and also to keep and reinvest more company profits. Another advantage of debt financing is that it provides small business owners with a greater degree of financial freedom than equity financing. Debt obligations are limited to the loan repayment period, after which the lender has no further claim on the business, whereas equity investors' claim does not end until their stock is sold. Debt financing is also easy to administer, as it generally lacks the complex reporting requirements that accompany some forms of equity financing. Finally, debt financing tends to be less expensive for small businesses over the long term, though more expensive over the short term, than equity financing.
- The main disadvantage of debt financing is that it requires a small business to make regular monthly payments of principal and interest. Very young companies often experience shortages in cash flow that may make such regular payments difficult, and most lenders provide severe penalties for late or missed payments. Another disadvantage associated with debt financing is that its availability is often limited to established businesses. Since lenders primarily seek security for their funds, it can be difficult for unproven businesses to obtain loans.
- The main advantage of equity financing for small businesses, which are likely to struggle with cash flow initially, is that there is no obligation to repay the money. Equity financing is also more likely to be available to concept and early stage businesses than debt financing. Equity investors primarily seek growth opportunities, so they are often willing to take a chance on a good idea. But debt financiers primarily seek security, so they usually require the business to have some sort of track record before they will consider making a loan. Another advantage of equity financing is that investors often prove to be good sources of advice and contacts for small business owners.
- The main disadvantage of equity financing is that the founders must give up some control of the business. If investors have different ideas about the company's strategic direction or day-to-day operations, they can pose

problems for the entrepreneur. In addition, some sales of equity, such as initial public offerings, can be very complex and expensive to administer. Such equity financing may require complicated legal filings and a great deal of paperwork to comply with various regulations. For many small businesses, therefore, equity financing may necessitate enlisting the help of attorneys and accountants.



ROLE MODEL

FRANCO MODIGLIANI: AMERICAN ECONOMIST

Franco Modigliani was an eminent Italian Economist and Nobel Prize Laureate, who, with his great passion for economics, formulated many theories in his domain. Though born in Italy, he spent most of his life in America, teaching and engaging in scripting works, all of course, related to his all-time passion — economics. He

was a strong antifascist who actively participated in various resistance movements with the support of Littoriali, a student organization in Italy. Greatly influenced by the great Economist John Maynard Keynes, he developed many important economic theories, most important one being the life-cycle hypothesis, which he developed with fellow economists like Irving Fisher, Roy Harrod, and Albert Ando and for which he was given the Nobel Memorial Prize in 1985. In this hypothesis, he made significant analysis on savings and financial markets. He also inspired several economics aspirants with his lectures and important discourses. Read on to explore more about the personal life, career, and achievements of this extraordinary economist.

Franco Modigliani Childhood & Early Life

Franco Modigliani was born to Italian parents — Enrico Modigliani and Olga Flaschel — in Rome, Italy, on 18 June 1918. His father was a renowned pediatrician and his mother was a volunteer social worker. He fared well in academics until he faced the most tragic incident of his life — the loss of his father in 1932 owing to a failed surgery. Being very close to his father, this irreparable loss caused Franco deep mental anguish. He was only 13-years-old when this tragedy struck him and his tiny world of happiness collapsed forever. Of all things, it affected his academics that led to poor performance in school for the next three years. Perturbed by his poor performance, his mother enrolled him into one of the best schools in Rome, Liceo Visconti. The exigent curriculum brought out the best in him and he excelled in studies, skipping the final year at school and going ahead to join the University of Rome at the age of 17, two years ahead of his peers.

Although his family wanted him to pursue medicine following his father's footsteps, he opted for legal studies, which was a thriving career option in Rome during those days. During his second year, he entered a national competition sponsored by 'I Littoriali della Cultura' or student organization in economics and bagged the first prize. Even though he did not consider his first essay as a significant one, it was substantial enough given that it helped establish his interest in economics. Unfortunately, the teaching in this domain was dreary, under the influence of fascism and he had to seek guidance from other economists whom he knew personally. He put in deliberate efforts to develop interest towards English and Italian classics on the recommendation of Riccardo Bachi.

Marriage and Migration

Franco Modigliani met many anti-fascists through Littoriali and with their help, voiced his strong opposition against fascism. To his good fortune, his future father in law (his girlfriend Serena's father) was also a staunch anti-fascist. He went to Paris on the invitation of Serena's parents and got married to her in 1939. Although he joined the Sorbonne, he did not find it exciting or inspiring enough, and upon realizing that it is a total wastage of time, he started studying on his own and composed his thesis at the Bibliotheque St. Genevieve. He returned to Rome in 1939 and there he discussed his thesis and received a doctorate degree. Prevising the threat of war in Europe, he migrated to U.S (New York) in 1939, a few days before World War II.

Anticipating a long stay in U.S, Franco Modigliani searched for the best possible way to pursue his interest in economics. He was fortunate enough to receive free tuition fellowship from the Graduate Faculty of Political and Social Science of the New School for Social Research, which was an institution operated in U.S to help European scholars who were victims of fascist dictatorships. For the next three years, he had a busy schedule where he slogged during the day to support his family and burned midnight oil studying. It was during this time his first son, Andre was born. It was an exciting time for him as he worked under the guidance of some of the best teachers in economics, including Adolph Lowe and Jacob Marschak. Of this, Franco Modigliani had a great regard for Jacob Marschak, who helped him develop concrete foundations in economics and econometrics, along with some mathematical aspects and was a constant source of motivation to him. Working with Marschak provided Franco Modigliani the opportunity to participate in an informal seminar in New York around 1940-41, along with other distinguished members like Abraham Wald, Tjalling Koopmans and Oscar Lange. This experience proved significant in his development as an eminent economist.

Later Years

He joined Columbia University as instructor in economics and statistics in 1942 and remained there until 1944. He then obtained his D. Soc. Sci. from the New School for Social Research in 1944, under the able guidance of Jacob Marschak. He became a U.S citizen in 1946 and two years later, in 1948, he joined the University of Illinois. The same year he received the prestigious Political Economy Fellowship from the University of Chicago and was offered a chance to take up the post of Research Consultant in the Cowles Commission. He was lucky enough to be appointed as the Director of a research project on “Expectations and Business Fluctuations” at the University of Illinois, Chicago. This opportunity helped him develop contacts with many luminaries like Marschak, Koopmans, Arrow and Simon. It was during this period that he came across two interesting theories — the theory of choice under uncertainty proposed by Von Neumann and Morgenstern and the theory on statistical interference from non-experimental observations by Haavelmo.

1950s and early 1960s witnessed two important contributions to economics from Franco Modigliani. The first one being Modigliani-Miller theorem in corporate finance along with Merton Miller, which demonstrated that “under certain assumptions, the value of a firm is not affected by whether it is financed by equity (selling shares) or debt (borrowing money)” and secondly, the life-cycle hypothesis which explains the level of saving in economy. This was an important contribution in economics and he was recognized with one of the most prestigious awards – The Nobel Prize because of his findings. He proposed that the level of consumption is stable in consumers, just as they save during their working years and spend all their savings after the retirement. During the later years, he joined MIT as an Institute Professor and stayed there until his death in 2003 in Cambridge, Massachusetts.

Modigliani was a big follower of John Maynard Keynes and his economic theories. He had stuck a cartoon on his office door, which said, “With your permission, gentlemen, I’d like to offer a kind word on behalf of John Maynard Keynes”.

Works

- “Corporate Income Taxes and the Cost of Capital” — with Merton Miller, published in American Economic Review.
- “The Cost of Capital, Corporation Finance, and the Theory of Investment” with Merton Miller, published in American Economic Review.
- “Fluctuations in the Saving-Income Ratio: A Problem in Economic Forecasting” — published in ‘Studies in Income and Wealth’.

Financial Management

- “The Life Cycle Hypothesis of Saving: Aggregate Implications and Tests.” — with Albert Ando, in *American Economic Review*, 1963.
- “The Predictability of Social Events” — with Emile Grumburg, in *Journal of Political Economy*.
- “Utility Analysis and the Consumption Function” — with Richard Brumberg, in *Post-Keynesian Economics*, edited by Kenneth Kurihara.

Achievements and Awards

- Nobel Memorial Prize in Economics, 1985
- MIT’s James R. Killian Faculty Achievement Award, 1985

FOCUS ON

THE ADVANTAGES OF CAPITAL STRUCTURE

Capital structure describes the amount of debt a company uses as opposed to equity, and it is often measured with the ratio of debt to equity. The more debt a company has, the more it has to pay creditors for the use of those funds. However, the more debt a company takes on, the more cash it has to generate sales. The challenge is in finding the right equilibrium between debt and equity for an optimal capital structure, which can then be leveraged to grow the business.



Amplifies Return-on-Equity

Return on equity, or ROE, is commonly used as a measure of business performance. It is the product of earnings, asset turnover and financial leverage or debt. The more leverage or debt you have in your capital structure, the more it amplifies your potential earnings. At the same time, an increase in debt or leverage also reduces earnings since interest is paid out of net earnings.

Greater Control and Flexibility

Debt financing allows you to keep full ownership over your business. With full ownership comes complete control. Equity financing is an investment in the ownership rights of the company. That is, equity investors get a portion of earnings. If there are no earnings, equity investors are not paid. However, debt investors must be paid no matter what happens. Failure to pay interest can result in a default, which results in a credit event. In this way, capital structure helps to better control and manage operational flexibility.

Framework for Negotiation

Capital structure provides an organized way to raise capital. Both debt and equity have their advantages and disadvantages. The equity investor gets a portion of your earnings no matter how much earnings grow, and the amount earned by equity investors is not limited by a certain period of time like debt. Once the loan is paid off, the creditor has no right to your earnings. Debt financing is also easier to negotiate and handle administratively than equity, which can come with complex reporting requirements.

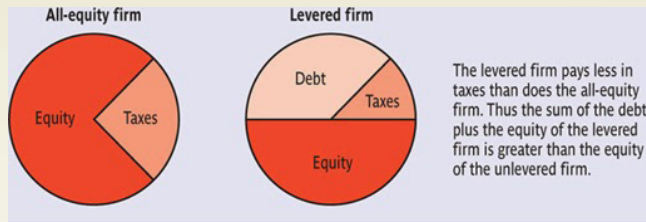
Equity Advantages

Capital structure also provides flexibility in raising funds. One advantage to equity financing for small business is that it is generally more available than debt financing. If your business is unproven, lenders have nothing to base future cash flows on. This may result in a requirement for a personal guarantee from one of the business owners. Equity financing is not required to be paid back immediately.

ETHICS

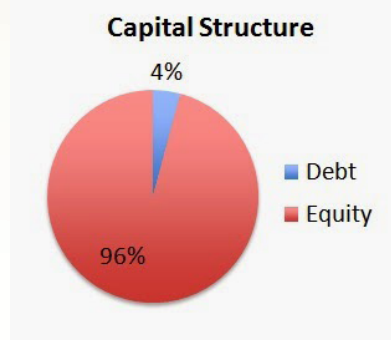
FINANCIAL MARKETS AND BUSINESS ETHICS

The capital structure of a firm consists of long term debt, preferred stock and equity. Capital structure is the financing mix of the firm. In order to determine the proportion of debt and equity issued by the firm, it is important to determine the debt to capitalization (D/E) ratio. The firm must maintain a balance between debt and equity. Too much debt can increase the risk of the firm, making investors apprehensive about its ability to pay its creditors (issues with liquidity). This may also increase the borrowing costs of the firm, cost of capital. Debt financing is beneficial up to a certain point because it provides financial leverage. The tax deductibility feature of interest payments paid to credit providers enables the company to achieve higher earnings per share.



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Financial leverage relates to issuing debt to finance investments and consists of the relationship between earnings before interest and taxes (EBIT) and earnings per share (EPS). The more debt the more fixed financial costs incurred by the firm. Interest payments may become too large relative to EBIT, hence the risk increases. An unlevered firm issues only equity. The higher the debt there is, the more the degree of financial leverage (DFL). The DFL is determined by dividing EBIT by EBIT – Net Income. For example if a firm has a DFL = 2.00, a 1% decrease in EBIT will produce a 2% decrease in EPS. So the more financial leverage, the more volatile the EPS become, and the greater the risk associated with the firm.



As the D/E ratio rises the possibility that the firm will be unable to meet its interest payments to bondholders also rises. At this point the firm's assets are ultimately transferred from the stockholders to the bondholders. When the value of the firm's assets equals the value of its debt, the firm is economically bankrupt in the sense that the equity has no value. There are legal and administrative costs associated to bankruptcy. Due to this, bondholders will not get all that they are owed. Some fraction of the firm's assets will disappear in the legal process of bankruptcy, known as direct bankruptcy costs. The firm is experiencing financial distress. The costs of avoiding a bankruptcy filing are indirect bankruptcy costs.

SUMMARY

- Capital structure, amount and type of permanent capital invested in a business concern. A firm's capital structure includes all outstanding capital stock and surplus, as well as long-term creditor capital.
- Capital structures of firms and industries vary widely. The ideal capital structure is one that provides sufficient capital for efficient and profitable operations, a maximum rate of return to the stockholders at a minimum of financial risk, and a minimum dilution of control.
- Cash flows must be arranged to meet fixed payments on debt; the more sales and profits fluctuate, the more difficult is the task of the financial manager in meeting the cash outflow for interest and debt repayments.
- Capital structure is what a company relies on to acquire the assets necessary to generate future sales and profits at the firm. In order for the financial capital structure to work efficiently, it will generate returns from the equity and debt that are higher than the cost of servicing that debt and equity.
- Capital structure is commonly known as the debt-to-equity ratio. Capital structure is the mix of the long-term sources of funds used by a firm. It is made up of debt and equity securities and refers to permanent financing of a firm.
- Financial structure is the mix of short-term liabilities, short-term debt, long-term debt, and equity that a business uses to finance its assets. A significant reliance on debt funding allows shareholders to achieve a higher return on investment, since there is less equity in the business.
- Optimum Capital Structure (OCM) refers to the relationship of debt and equity securities which maximize the value of the company's share on the stock exchange. The composite cost of capital is the least at optimum capital structure.
- Financial leverage is an important consideration in planning the capital structure of a company because of its effects on the earning per share. The trading on equity is a device to earn higher earnings on the share capital of a company.

KNOWLEDGE CHECK

1. The discount rate used to determine the present value of a stream of expected future cash flows is referred to as the _____.
 - a. net operating income
 - b. capitalization rate
 - c. capital structure
 - d. yield on the company's market value of common equity
2. The traditional approach towards the valuation of a company assumes that _____.
 - a. the cost of capital is independent of the capital structure of the firm
 - b. the firm maintains constant risk regardless of the type of financing employed
 - c. there exists no optimal capital structure
 - d. that management can increase the total value of the firm through the judicious use of financial leverage
3. The presence of which one of the following costs is not used as a major argument against the M&M arbitrage process?
 - a. Bankruptcy costs.
 - b. Agency costs.
 - c. Transactions costs.
 - d. Insurance costs.
4. What is the present value of the net tax-shield of debt if the current market value of the firm is \$10 million, its value if unlevered would be \$8 million, and the present value of bankruptcy and agency costs is \$500,000?
 - a. \$1,500,000
 - b. \$2,000,000
 - c. \$2,500,000
 - d. None of the above are correct.

5. What is the market value of common equity under the NOI approach? The firm has an expected net operating income of \$5,000 with \$4,000 of debt (market value). Assume that the overall capitalization rate is 20%.
 - a. \$5,000
 - b. \$20,000
 - c. \$21,000
 - d. \$25,000
6. With corporate taxes, an unfavorable impact on a company's total firm valuation usually occurs when less financial leverage is used.
 - a. True
 - b. False
7. Modigliani and Miller, (M&M) in their original position advocate that the relationship between financial leverage and the cost of capital is explained by the traditional approach to capital structure and valuation.
 - a. True
 - b. False
8. The higher a firm's cost of capital, k_v , the higher the total valuation of the firm.
 - a. True
 - b. False
9. Recapitalization occurs when the firm alters its capital structure.
 - a. True
 - b. False
10. Increasing the value of the firm through different types of financing is the basis behind looking at the optimal capital structure.
 - a. True
 - b. False

REVIEW QUESTIONS

1. Write the meaning of capital structure.
2. Differentiate between capital structure and financial structure.
3. What is optimum capital structure?
4. Define the factors determining capital structure.
5. Discuss about Modigliani and Miller's propositions in finance.

CRITICAL QUESTION

1. Explain the theories of capital structure. Also evaluate a company's capital structure using ratios.

Check Your Result

1. (b)	2. (d)	3. (d)	4. (c)	5. (c)
6. (a)	7. (b)	8. (b)	9. (a)	10. (a)

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5

COST OF CAPITAL

"The cost of capital is "a cut-off rate for the allocation of capital to investments of projects. It is the rate of return on a project that will leave unchanged the market price of the stock."

—James C. Van Horne

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Describe the basic concept of cost of capital
- Discuss about capital and interest
- Understand the computation of cost of capital



KEY IDEAS

1. The term cost of capital refers to the minimum rate of return a firm must earn on its investments. This is in consonance with the firm's overall object of wealth maximization. Cost of capital is a complex, controversial but significant concept in financial management.
2. Once cost of debt and cost of equity have been determined, their blend, the weighted average cost of capital (WACC), can be calculated. This WACC can then be used as a discount rate for a project's projected free cash flows to firm.
3. A fixed rate of dividend is payable on preference shares. Though dividend is payable at the discretion of the Board of directors and there is no legal binding to pay dividend, yet it does not mean that preference capital is cost free.
4. The weighted cost of capital (WACC) is used in finance to measure a firm's cost of capital. WACC is not dictated by management. Rather, it represents the minimum return that a company must earn on an existing asset base to satisfy its creditors, owners, and other providers of capital, or they will invest elsewhere.

INTRODUCTION

Cost of capital is an integral part of investment decision as it is used to measure the worth of investment proposal provided by the business concern. It is used as a discount rate in determining the present value of future cash flows associated with capital projects. Cost of capital is also called as cut-off rate, target rate, hurdle rate and required rate of



Citation: <https://www.thestockdork.com/weighted-average-cost-of-capital/>

return. When the firms are using different sources of finance, the finance manager must take careful decision with regard to the cost of capital; because it is closely associated with the value of the firm and the earning capacity of the firm.

Cost of capital is the required return necessary to make a capital budgeting project, such as building a new factory, worthwhile. Cost of capital includes the cost of debt and the cost of equity, and is used by companies internally to judge whether a capital project is worth the expenditure of resources, and by investors who use it to determine whether an investment is worth the risk compared to the return.



Citation: <https://gyf.com/costofcap-equity-vs-invested/>

Cost of capital depends on the mode of financing used — it refers to the cost of equity if the business is financed solely through equity, or to the cost of debt if it is financed solely through debt. Many companies use a combination of debt and equity to finance their businesses and, for such companies, the overall cost of capital is derived from a weighted average of all capital sources, widely known as the weighted average cost of capital (WACC). Since the cost of capital represents a hurdle rate that a company must overcome before it can generate value, it is extensively used in the capital budgeting process to determine whether the company should proceed with a project.



<https://www.youtube.com/watch?v=6ufWO5l3lRo>

BASIC CONCEPT OF COST OF CAPITAL

Cost of capital is essentially another way to identify the opportunity cost that is associated with a given investment. In other words, the cost of capital has to do with the amount or rate of return that can be expected on the investment, in comparison to what would be realized by selling off the investment. Investors routinely consider the cost of capital when projecting the potential profits that may be made by choosing to invest in a given stock or bond issue.



Citation: <https://www.ilearnlot.com/the-cost-of-capital-meaning-and-definition/>

Acquisition is a situation whereby one company purchases most or all of another company's shares in order to take control.

When an investor chooses to make an investment, there is usually an expectation that two specific events will take place. First, the investor will recoup the amount of capital initially used to purchase the bonds or stocks involved in the transaction. Thus, there is anticipation that the investor will not in fact incur a loss as a result of the **acquisition**. Generally speaking, investors do not invest in securities that offer little to no hope of recouping the initial investment, as this represents negative opportunity costs and defeats the purpose for investing.



Citation: <https://images.wisegeek.com/two-business-people-sitting-at-desk-looking-at-finance-charts.jpg>

Along with recouping the initial investment, the typical investor also hopes to earn a return on the securities that are acquired. Depending on the strategy of the investor, this may include a short period where the investment actually loses money before the security stabilizes and begins to rise in value. But the ultimate goal is for the investment to generate a positive cost of capital. That is, the investor seeks to realize a rate of return that not only exceeds the initial cost of acquisition, but also earns the investor a significant amount of financial rewards that help to compensate for the time and effort put into the investment strategy. Because the whole point of investing is to make money rather than lose it, investors and brokers will pay close attention to the history and future potential of a given investment opportunity. By doing so, the chances of realizing a rate of return and thus generating a positive cost of capital are much better than in cases where no research into the potential of the security takes place.

Meaning and Definition of Cost of Capital

Cost of capital (COC) is the rate of return that a firm must earn on its project investments to maintain its market value and attract funds. COC is the required rate of return on its investments which belongs to equity, debt and retained earnings. If a firm fails to earn the return at the expected rate, the market value of the shares will fall and it will result in the reduction of the overall wealth of the shareholders.

In economics and accounting, the cost of capital is the cost of a company's funds (both debt and equity), or, from an investor's point of view "the required rate of return on a portfolio company's existing securities". It is used to evaluate new projects of a company. It is the minimum return that investors expect for providing capital to the company, thus setting a benchmark that a new project has to meet.

Meaning of Cost of Capital

An investor provides long-term funds (i.e., Equity shares, Preference Shares, Retained earnings, Debentures etc.) to a company and quite naturally he expects a good return on his investment. In order to satisfy the investor's expectations, the company should be able to earn enough revenue. Thus, to the company, the COC is the minimum rate of return that the company must earn on its investments to fulfill the expectations of the investors.

If a company can raise long-term funds from the market at 10%, then 10% can use as the cut-off rate as the management gains only when the project gives return higher than 10%. Hence 10% is the discount rate or cut-off rate. In other words, it is the minimum rate of return required on the investment project to keep the market value per share unchanged. In order to maximize the shareholders' wealth through increase price of shares, a company has to earn more than the COC. The firm's cost of capital can determine by working out the weighted average of the different costs of raising different sources of capital.

Definition of Cost of Capital

As it is evident from the name, cost of capital refers to the weighted average cost of various capital components, i.e. sources of finance, employed by the firm such as equity, preference or debt. In finer terms, it is the rate of return, that must be received by the firm on its investment projects, to attract investors for investing capital in the firm and to maintain its market value.

The factors which determine the cost of capital are:

- Source of finance
- Corresponding payment for using finance.

On raising funds from the market, from various sources, the firm has to pay some additional amount, apart from the principal itself. The additional amount is nothing but the cost of using the capital, i.e. cost of capital which is either paid in lump sum or at periodic intervals. We have seen that the cost of capital is the average rate of return required by the investors. Various researchers defined the term cost of capital in different ways some of which are stated below. Some definitions of financial experts are given below for the clear conception of the COC:

Ezra Solomon defines:

“Cost of capital is the minimum required rate of earnings or cutoff rate of capital expenditure”.

According to Mittal and Agarwal:

“The cost of capital is the minimum rate of return which a company is expected to earn from a proposed project so as to make no reduction in the earning per share to equity shareholders and its market price”.

According to Khan and Jain, cost of capital means:

“The minimum rate of return that a firm must earn on its investment for the market value of the firm to remain unchanged”.

According to the definition of John J. Hampton:

“Cost of capital is the rate of return the firm required from investment in order to increase the value of the firm in the marketplace”.

Each type of capital used by the firm (debt, preference shares, and equity) should incorporate into the COC, with the relative importance of a particular source being based on the percentage of the financing provided by each source of capital. Using the cost a single source of capital as the hurdle rate is tempting to management, particularly when an **investment** is financed entirely by debt. However, doing so is a mistake in logic and can cause problems.

Investment is the purchase of goods that are not consumed today but are used in the future to create wealth.

Assumption of Cost of Capital

Cost of capital is vital part of investment decision as it is used to measure the value of investment proposal provided by the business concern. It is used as a discount rate to determine the present value of future cash flows related with capital projects. Cost of capital is also termed as cut-off rate, target rate, hurdle rate and required rate of return. When the companies are using different sources of finance, the finance manager must take vigilant decision with regard to the cost of capital; because it is closely associated with the value of the firm and the earning capacity of the firm.



Citation: <http://static1.squarespace.com/static/5734abde40261dc2ceaffd0b/t/5acce558562fa79982de0941/1523377513261/rawpixel-com-252130-unsplash+%282%29.jpg?format=1500w>

The relationship between the capital structure and the cost of capital can better be understood if we assume:

- Two types of capital, viz., debt and equity, are employed;
- Total assets of the firms must be presented;
- Regularity of paying 100% dividends to the shareholders;
- The operating incomes may not be expected to grow further;
- Business risk should be constant;
- There will not be any income tax;
- Investors should bear the same subjective probability distribution relating to future operating income;
- The firm must enjoy a perpetual life.

It is documented in theoretical studies that cost of capital is based on some assumptions which are directly related while calculating and measuring the cost of capital. There are three basic concepts:

- It is not a cost as such. It is merely a hurdle rate.
- It is the minimum rate of return.
- It consists of three important risks such as zero risk level, business risk and financial risk.

Cost of capital can be measured with the following equation:

$$K = r_j + b + f$$

Where,

K = Cost of capital.

r_j = The riskless cost of the particular type of finance.

b = The business risk premium.

f = The financial risk premium.

Significance of the Cost of Capital

The concept of cost of capital is important in financial management in many ways. Especially, it is useful in deciding the capital structure of a company. It has great significance in the field of financial management. Recently, increasing attention is being paid to it by the academicians, as also by the newly appointed financial managers of the companies. In the past, the concept of cost of capital was neglected. Most of the economists took it for granted the cost of capital is not affected an important role in the determination of capital structure and in capital budgeting both. The significance of the concept of cost of capital will be clear from the following.

- **For Capital Budgeting Decisions:** The concept of cost of capital helps in making financial decisions. Specially, in case of capital budgeting, it is used as a decision criterion in capital decision. If the present value of cash flows of the project is greater than the present value of investment in it, the project would be accepted. The rate of discount that is used to calculate the present value of future cash flows of the project is nothing but the cost of capital. Thus, cost of capital is the minimum rate of return required on investment projects. It is the rate of discount which is used to evaluate the profitability of an investment project. Thus, minimum rate of return of an investment project cut-off rate, target rate and hurdle rate are all synonyms used for the cost of capital. If the investment project is to be evaluated on the basis of an internal rate of return, the project will be acceptable when the internal rate of return exceeds the cost of capital.
- **Maintaining Market Value of Shares:** An important decision in the field of financial planning is concerning maximization of the equity shareholders' wealth. For the maximization of equity shareholders' wealth, it is necessary that market values of shares are maintained at a high level. The cost of capital is in fact that minimum rate of return which maintains the market value of shares at its current level. If a company succeeds in raising its earnings the market value of its shares would naturally move above this level. Thus, cost of

capital serves as a criterion which helps in optimum utilization company's financial resources.

- **Helps in Designing Capital Structure:** A proper capital structure can be built with the help of the concept of cost of capital. The lower the cost of capital, the stronger can be the market value of the firm. That is, they can move towards the goal of wealth maximization. Hence the capital structure should be planned in such a manner that cost of capital is minimized. This will raise the market value of the firm.
- **Issue of New Securities:** If an investment scheme is found profitable, it may be necessary to issue new securities to raise money for this investment scheme. The concept of cost of capital provides guidance in deciding which type of securities should be used for this purpose. For taking such decisions the following must be taken into consideration: the nature of existing capital structure, the cost of capital of different sources of finance, the effect on aggregate cost of capital when money is raised through debts instead of equity shares etc. how to raise the required finance can be decided on the basis of the information about cost of existing capital and that of raising additional capital.
- **To Evaluate the Performance of Top Management:** The concept of cost of capital is helpful also in evaluating the financial performance of the top management. For this purpose, actual profitability of the new scheme of investment is to be compared with the projected overall cost of capital, and actual cost incurred in raising required funds is also to be assessed.
- **Financial Decisions:** The concept of capital is important in many other areas of **financial decision** making such as dividend decisions, working capital policy, capital budgeting decisions etc. the decision etc. the decision about dividends to be taken on the basis of the amount of profit that is to be reserved in the company, and the amount of reserves depends on the relation between its capital cost on the one hand and possible rate of return if it is invested in business, on the other.

Financial decision is a process which is responsible for all the decisions related with liabilities and stockholder's equity of the company as well as the issuance of bonds.



Citation: [https://www.thebalancesmb.com/thmb/TjAKpX0W69FBo-4TGz3fuQ7OzAo=/2121x1414/filters:fill\(auto,1\)/GettyImages-137954754-5acf87626bf069003773d828.jpg](https://www.thebalancesmb.com/thmb/TjAKpX0W69FBo-4TGz3fuQ7OzAo=/2121x1414/filters:fill(auto,1)/GettyImages-137954754-5acf87626bf069003773d828.jpg)

Classification of Cost of Capital

The cost of capital defines as the minimum rate of return a firm must earn on its investment in order to satisfy investors and to maintain its market value. It is the investors required rate of return. Cost of capital also refers to the discount rate which is used while determining the present value of estimated future cash flows. The major classification of cost of capital are:

- **Historical Cost and future Cost:** Historical Cost represents the cost which has already been incurred for financing a project. It is calculated on the basis of the past data. Future cost refers to the expected cost of funds to be raised for financing a project. Historical costs help in predicting the future costs and provide an evaluation of the past performance when compared with standard costs. In financial decisions future costs are more relevant than historical costs.
- **Specific Costs and Composite Cost:** Specific costs refer to the cost of a specific source of capital such as equity shares, Preference

shares, debentures, retained earnings etc. Composite cost of capital refers to the combined cost of various sources of finance. In other words, it is a weighted average cost of capital. It is also termed as 'overall costs of capital'. While evaluating a capital expenditure proposal, the composite cost of capital should be as an acceptance/ rejection criterion. When capital from more than one source is employed in the business, it is the composite cost which should be considered for decision-making and not the specific cost. But where capital from only one source is employed in the business, the specific cost of those sources of capital alone must be considered.

- **Average Cost and Marginal Cost:** Average cost of capital refers to the weighted average cost of capital calculated on the basis of cost of each source of capital and weights are assigned to the ratio of their share to total capital funds. Marginal cost of capital may be defined as the 'Cost of obtaining another dollar of new capital.' When a firm raises additional capital from only one sources (not different sources), than marginal cost is the specific or explicit cost. Marginal cost is considered more important in capital budgeting and financing decisions. Marginal cost tends to increase proportionately as the amount of debt increase.
- **Explicit Cost and Implicit Cost:** Explicit cost refers to the discount rate which equates the present value of cash outflows or value of investment. Thus, the explicit cost of capital is the internal rate of return which a firm pays for procuring the finances. If a firm takes interest free loan, its explicit cost will be zero percent as no cash outflow in the form of interest are involved. On the other hand, the implicit cost represents the rate of return which can be earned by investing the funds in the alternative investments. In other words, the opportunity cost of the funds is the implicit cost. Implicit cost is the rate of return with the best investment opportunity for the firm and its shareholders that will be forgone if the project presently under consideration by the firm were accepted. Thus implicit cost arises only when funds are invested somewhere, otherwise not. For example, the implicit cost of retained earnings is the rate of return which the shareholder could have earn by investing these funds, if the company would have distributed these earning to them as dividends. Therefore, explicit cost will arise only when funds are raised whereas implicit cost arises when they are used.

Importance of Cost of Capital

The cost of capital is very important concept in the financial decision making. Cost of capital is the measurement of the sacrifice made by investors in order to invest with a view to get a fair return in future on his investments as a reward for the postponement of his present needs. On the other hand from the point of view of the

firm using the capital, cost of capital is the price paid to the investor for the use of capital provided by him. Thus, cost of capital is reward for the use of capital. The progressive management always likes to consider the importance cost of capital while taking financial decisions as it is very relevant in the following spheres:

- **Designing the capital structure:** The cost of capital is the significant factor in designing a balanced and optimal capital structure of a firm. While designing it, the management has to consider the objective of maximizing the value of the firm and minimizing cost of capital. Comparing the various specific costs of different sources of capital, the financial manager can select the best and the most economical source of finance and can designed a sound and balanced capital structure.
- **Capital budgeting decisions:** The cost of capital sources as a very useful tool in the process of making capital budgeting decisions. Acceptance or rejection of any investment proposal depends upon the cost of capital. A proposal shall not be accepted till its rate of return is greater than the cost of capital. In various methods of discounted cash flows of capital budgeting, cost of capital measured the financial performance and determines acceptability of all investment proposals by discounting the cash flows.
- **Comparative study of sources of financing:** There are various sources of financing a project. Out of these, which source should be used at a particular point of time is to be decided by comparing costs of different sources of financing. The source which bears the minimum cost of capital would be selected. Although cost of capital is an important factor in such decisions, but equally important are the considerations of retaining control and of avoiding risks.
- **Evaluations of financial performance:** Cost of capital can be used to evaluate the financial performance of the capital projects. Such as evaluations can be done by comparing actual profitability of the project undertaken with the actual cost of capital of funds raise to finance the project. If the actual profitability of the project is more than the actual cost of capital, the performance can be evaluated as satisfactory.
- **Knowledge of firms expected income and inherent risks:** Investors can know the firms expected income and risks inherent there in by cost of capital. If a firms cost of capital is high, it means the firms present rate of earnings is less, risk is more and capital structure is imbalanced, in such situations, investors expect higher rate of return.
- **Financing and Dividend Decisions:** The concept of capital can be conveniently employed as a tool in making other important financial decisions. On the basis, decisions can be taken regarding **dividend policy**, capitalization of profits and selections of sources of working capital.



Citation: <https://assets.entrepreneur.com/content/3x2/2000/20160309182547-capital-privado.jpeg>

Dividend policy is the set of guidelines a company uses to decide how much of its earnings it will pay out to shareholders.

In sum, the importance of cost of capital is that it is used to evaluate new project of company and allows the calculations to be easy so that it has minimum return that investor expect for providing investment to the company.

CAPITAL AND INTEREST

Capital and interest, in economics, a stock of resources that may be employed in the production of goods and services and the price paid for the use of credit or money, respectively. Capital in economics is a word of many meanings. They all imply that capital is a “stock” by contrast with income, which is a “flow.” In its broadest possible sense, capital includes the human population; nonmaterial elements such as skills, abilities, and education; land, buildings, machines, equipment of all kinds; and all stocks of goods—finished or unfinished—in the hands of both firms and households.



Citation: <https://www.cfainstitute.org/en/advocacy/market-integrity-insights/2014/08/the-great-unwind-what-will-rising-interest-rates-mean>

In the business world the word capital usually refers to an item in the balance sheet representing that part of the net worth of an enterprise that has not been produced through the operations of the enterprise. In economics the word capital is generally confined to “real” as opposed to merely “financial” assets. Different as the two concepts may seem, they are not unrelated. If all balance sheets were consolidated in a closed economic system, all debts would be cancelled out because every debt is an asset in one balance sheet and a liability in another. What is left in the consolidated balance sheet, therefore, is a value of all the real assets of a society on one side and its total net worth on the other. This is the economist’s concept of capital.

A distinction may be made between goods in the hands of firms and goods in the hands of households, and attempts have been made to confine the term capital

Accounting system is the system used to manage the income, expenses, and other financial activities of a business.

structure to the former. There is also a distinction between goods that have been produced and goods that are gifts of nature; attempts have been made to confine the term capital to the former, though the distinction is hard to maintain in practice. Another important distinction is between the stock of human beings (and their abilities) and the stock of nonhuman elements. In a slave society human beings are counted as capital in the same way as livestock or machines. In a free society each man is his own slave—the value of his body and mind is not, therefore, an section of commerce and does not get into the accounting system. In strict logic persons should continue to be regarded as part of the capital of a society; but in practice the distinction between the part of the total stock that enters into the **accounting system**, and the part that does not, is so important that it is not surprising that many writers have excluded persons from the capital stock.

Another distinction that has some historical importance is that between circulating and fixed capital. Fixed capital is usually defined as that which does not change its form in the course of the process of production, such as land, buildings, and machines. Circulating capital consists of goods in process, raw materials, and stocks of finished goods waiting to be sold; these goods must either be transformed, as when wheat is ground into flour, or they must change ownership, as when a stock of goods is sold. This distinction, like many others, is not always easy to maintain. Nevertheless, it represents a rough approach to an important problem of the relative structure of capital; that is, of the proportions in which goods of various kinds are found. The stock of real capital exhibits strong complementarities. A machine is of no use without a skilled operator and without raw materials for it to work on.

The Classical Theory of Capital

Although ancient and medieval writers were interested in the ethics of interest and usury, the concept of capital as such did not rise to prominence in economic thought before the classical economists (Adam Smith, David Ricardo, Nassau Senior, and John Stuart Mill).

Adam Smith laid great stress on the role played by the accumulation of a stock of capital in facilitating the division

of labor economics and in increasing the productivity of labor in general. He recognized clearly that accumulation proceeds from an excess of production over consumption. He distinguished between productive labor, which creates objects of capital, and unproductive labor (services), the fruits of which are enjoyed immediately. His thought was strongly colored by observation of the annual agricultural cycle. The end of the harvest saw society with a given stock of grain. This stock was in the possession of the capitalists. A certain portion of it they reserved for their own consumption and for the consumption of their menial servants, the rest was used to feed “productive laborers” during the ensuing year. As a result, by the end of the next harvest the barns were full again and the stock had replaced itself, perhaps with something left over. The stock that the capitalists did not reserve for their own use was the “wages fund”—the more grain there was in the barn in October the sharper the competition of capitalists for workers, and the higher real wages would be in the year to come. The picture is a crude one, of course, and does not indicate the complexity of the relationship between stocks and flows in an industrial society. The last of the classical economists, John Stuart Mill, was forced to abandon the wages-fund theory. Nevertheless, the wages fund is a crude representation of some real but complex relationships, and the theory reappears in a more sophisticated form in later writers.



Citation: [https://www.thoughtco.com/thmb/irbQilek_w1ZDCiY3kdBTyZWlaM=/2020x1486/filters:fill\(auto,1\)/143221921-56a27dae3df78cf77276a63b.jpg](https://www.thoughtco.com/thmb/irbQilek_w1ZDCiY3kdBTyZWlaM=/2020x1486/filters:fill(auto,1)/143221921-56a27dae3df78cf77276a63b.jpg)

The classical economists distinguished three categories of income—wages, profit, and rent—and identified these with three factors of production—labor, capital, and land. David Ricardo especially made a sharp distinction between capital as “produced means of production,” and land as the “original and indestructible powers of the soil.” In modern economics this distinction has become blurred.

The Austrian School

About 1870 a new school developed, sometimes called the Austrian school from the fact that many of its principal members taught in Vienna, but perhaps better called the Marginalist school. The movement itself was thoroughly international, and included such figures as William Stanley Jevons in England and Léon Walras in France. The so-called Austrian theory of capital is mainly based on the work of Eugen Böhm-Bawerk. His *Positive Theory of Capital* (1889) set off a controversy that has not yet subsided. In the Austrian view the economic process consisted of the embodiment of “original factors of production” in capital goods of greater or lesser length of life that then yielded value or utility as they were consumed. Between the original embodiment of the factor and the final fruition in consumption lay an interval of time known as the period of production. In an equilibrium population it can easily be shown that the total population (capital stock) equals the annual number of births or deaths (income) multiplied by the average length of life (period of production). The longer the period of production, therefore, the more capital goods there will be per unit of income. If the period of production is constant, income depends directly on the amount of capital previously accumulated. Here is the wages fund in a new form. Unfortunately, the usefulness of Böhm-Bawerk’s theory is much impaired by the fact that it is confined to equilibrium states. The great problems of capital theory are dynamic in character, and **comparative statics** throws only a dim light on them.

Comparative statics is the comparison of two different economic outcomes, before and after a change in some underlying exogenous parameter.

Marginalist and Keynesian Theories

The Marginalist school culminated in the work of three men—P.H. Wickstead in England, Knut Wicksell in Sweden, and Irving Fisher in the United States. The last two especially gave the Austrian theory clear mathematical expression. Perhaps the greatest contribution of the Austrian theory was its recognition of the importance of the valuation problem in the relation of capital to interest. From the mere fact that physical capital produces an income stream, there is no explanation of the phenomenon of interest, for the question is why the value of a piece of physical capital should be less than the total of future values that are expected to accrue from it. The theory also makes a contribution to the problem of rational choice in situations involving waiting or maturing. The best example is that of slowly maturing goods such as wines or timber. There is a problem here of the best time to draw wine or to cut down a tree. According to the marginal theory this is at the time when the rate of net value growth of the item is just equal to the rate of interest, or the rate of return in alternative investments. Thus, if a tree or a wine is increasing in value at the rate of 7 % per annum when the rate of interest is 6 % it still pays to be patient and let it grow or mature. The longer it grows, however, the less the rate of value growth, and when the rate of value growth has fallen to the rate of interest, then is the time to reap the fruits of patience.

The contributions of John Maynard (Lord) Keynes to capital theory are incidental rather than fundamental. Nevertheless, the “Keynesian revolution” had an impact on this area of economic thought as on most others. It overthrew the traditional assumption of most economists that savings were automatically invested. The great contribution of Keynes, then, is the recognition that the attempt to save does not automatically result in the accumulation of capital. A decision to restrict consumption is only a decision to accumulate capital if the volume of production is constant. If abstention from consumption itself results in a diminution of production, then accumulation (production minus consumption) is correspondingly reduced.

Later Thinking

The theory of capital was not a matter of primary concern to economists in the late 20th century, though some revival of interest occurred in the late 1950s. Nevertheless, certain problems remain of perennial interest. They may be grouped as follows.

Heterogeneous Goods

First are the problems involved in measuring aggregates of goods. Real capital includes everything from screwdrivers to continuous strip-rolling mills. A single measure of

total real capital can be achieved only if each item can be expressed in a common denominator such as a given monetary unit (e.g., dollars, sterling, francs, pesos, etc.). The problem becomes particularly complicated in periods of rapid technical change when there is change not only in the relative values of products but in the nature of the list itself. Only approximate solutions can be found to this problem, and no completely satisfactory measure is ever possible.

A related problem that has aroused considerable interest among accountants is how to value capital assets that have no fixed price. In the conventional balance sheet the value of some items is based on their cost at an earlier period than that of others. When the general level of prices is changing this means that different items are valued in monetary units of different purchasing power. The problem is particularly acute in the valuation of inventory. Under the more conventional “FIFO” (First In, First Out) system, inventory is valued at the cost (purchase price) of the latest purchases. This leads to an inflation of inventory values, and therefore of accounting profits, in time of rising prices (and a corresponding deflation under falling prices), which may be an exaggeration of the long-run position of the firm. This may be partially avoided by a competing system of valuation known as LIFO (Last In, First Out), in which inventory is valued at the purchase price of the earliest purchases. This avoids the fluctuations caused by short-run price-level changes, but it fails to record changes in real long-run values. There seems to be no completely satisfactory solution to this problem, and it is wise to recognize the fact that any single figure of capital value that purports to represent a complex, many-dimensional reality will need careful interpretation.

The Accumulation Process

A second problem concerns the factors that determine the rate of accumulation of capital; that is, the rate of investment. It has been seen that investment in real terms is the difference between production and consumption. The classical economist laid great stress on frugality as the principal source of capital accumulation. If production is constant it is true that the only way to increase accumulation is by the reduction of consumption. Keynes shifted the emphasis from the reduction of consumption to the increase of production, and regarded the decision to produce investment goods as the principal factor in determining the rate of growth of capital. In modern theories of economic development great stress is laid on the problem of the structure of production—the relative proportions of different kinds of activity. The advocates of “balanced growth” emphasize the need for a developing country to invest in a wide range of related and cooperative enterprises, public as well as private. There is no point in building factories and machines, they say, if the educational system does not provide a labor force capable of using them. There is also, however, a case to be made

for “unbalanced growth,” in the sense that growth in one part of the economy frequently stimulates growth in other parts. A big investment in mining or in hydroelectric power, for example, creates strains on the whole society, which result in growth responses in the complementary sectors. The relation of inflation to economic growth and investment is an important though difficult problem. There seems to be little doubt that deflation, mainly because it shifts the distribution of income away from the profit maker toward the *rentier* and bondholder, has a deleterious effect on investment and the growth of capital. In 1932, for instance, real investment had practically ceased in the United States. It is less clear at what point inflation becomes harmful to investment. In countries where there has been long continuing **inflation** there seems to be some evidence that the structure of investment is distorted. Too much goes into apartment houses and factories and not enough into schools and communications.

Inflation is a sustained increase in the general price level of goods and services in an economy over a period of time.

Capital and Time

A third problem that exists in capital theory is that of the period of production and the time structure of the economic process. This cannot be solved by the simple formulas of the Austrian school. Nevertheless, the problem is a real one and there is still a need for more useful theoretical formulations of it. Decisions taken today have results extending far into the future. Similarly, the data of today's decisions are the result of decisions that were taken long in the past. The existing capital structure is the embodiment of past decisions and the raw material of present decisions. The incompatibility of decisions is frequently not discovered at the time they are made because of the lapse of time between the decision and its consequences. It is tempting to regard the cyclical structure of human history, whether the business cycle or the war cycle, as a process by which the consequences of bad decisions accumulate until some kind of crisis point is reached. The crisis (a war or a depression) redistributes power in the society and so leads to a new period of accumulating, but hidden, stress. In this process, distortion in the capital structure is of great importance.



Citation: <https://thebamalliance.com/wp-content/uploads/2016/10/Bank-Teller.jpg>

Capital and Income

A fourth problem to be considered is the relationship that exists between the stocks and the flows of a society, or in a narrower sense the relation between capital and income. Income, like capital, is a concept that is capable of many definitions; a useful approach to the concept of income is to regard it as the gross addition to capital in a given period. For any economic unit, whether a firm or an individual, income may be measured by that hypothetical amount of consumption that would leave capital intact. In real terms this is practically identical with the concept of production. The total flow of income is closely related to both the quantity and the structure of capital; the total real income of a society depends on the size and the skills of its population, and on the nature and the extent of the equipment with which they have to work. The most important single measure of economic well-being is real income per person; this is closely related to the productivity of labor, and this in turn is closely related to capital per person, especially if the results of investment in human resources, skills, and education are included in the capital stock.

Interest

Interest is payment from a borrower or deposit-taking financial institution to a lender or depositor of an amount above repayment of the principal sum (i.e., the amount

borrowed), at a particular rate. Historically, the concept of capital has been so closely bound to the concept of interest that it seems wise to take these two topics together, even though in the modern view it is capital and income rather than capital and interest that are the related concepts.

Interest as a form of income may be defined as income that is received as a result of the possession of contractual obligations for payment on the part of another. Interest, in other words, is income that is received as a result of the ownership of a bond, a promissory note, or some other instrument that represents a promise on the part of some other party to pay sums in the future. The obligations may take many forms. In the case of the perpetuity, the undertaking is to pay a certain sum each year or other interval of time for the indefinite future. A bond with a date of maturity usually involves a promise to pay a certain sum each year for a given number of years, and then a larger sum on the terminal date. A promissory note frequently consists of a promise to pay a single sum at a date that is some time in the future.



Citation: https://co-opcreditunions.org/wp-content/uploads/2017/02/iStock-500079742_small.jpg

If $a_1, a_2, \dots, a_n$ are the sums received by the bondholder in years 1, 2, ..., n , and if P_0 is the present value in year 0, or the sum for which the bond is purchased, the rate of interest r in the whole transaction is given by the equation

$$P_0 = a_1(1+r)^{-1} + a_2(1+r)^{-2} + \dots + a_n(1+r)^{-n}$$

There is no general solution for this equation, though in practice it can be solved easily by successive approximation, and in special cases the equation reduces to much simpler forms. In the case of a promissory note, for instance, the equation reduces to the form

$$P_o = a_n(1+r)^{-n}, \text{ or } \log(1+r) = \frac{\log a_n - \log P_o}{n}$$

where a_n is the single promised payment. In the case of a perpetuity with an annual payment of a , the formula reduces to

$$P_o = a[(1+r)^{-1} + (1+r)^{-2} + \dots \text{to inf.}] = \frac{a}{r}$$

$$\text{when } r = \frac{a}{P_o}$$

Thus if one had to pay \$200 to purchase a perpetual annuity of \$5 per annum, the rate of interest would be $2\frac{1}{2}\%$.

It should be observed that the dimensions of the rate of interest are those of a rate of growth. The rate of interest is not a price or ratio of exchange; it is not itself determined in the market. What is determined in the market is the price of contractual obligations or "bonds." The higher the price of a given contractual obligation, the lower the rate of interest on it. Suppose, for instance, that one has a promissory note that is a promise to pay one \$100 in one year's time. If you buy this for \$100 now, the rate of interest is zero; if you buy it for \$95 now the rate of interest is a little over 5%; if you buy it for \$90 now, the rate of interest is about 11%. The rate of interest may be defined as the gross rate of growth of capital in a contractual obligation.

A distinction is usually made between interest and profit as forms of income. In ordinary speech, profit usually refers to income derived from the ownership of aggregates or assets of all kinds organized in an enterprise. This aggregate is described by a balance sheet. In the course of the operations of the enterprise, the net worth grows, and **profit** is the gross growth of net worth. Stocks, as opposed to bonds, usually imply a claim on the profits of some enterprise.

Profit is an absolute number determined by the amount of income or revenue above and beyond the costs or expenses a company incurs.

The Development of Interest Theory

In ancient and medieval times the main focus of inquiry into the theory of interest was ethical, and the principal question was the moral justification of interest. On the whole, the taking of interest was regarded unfavorably by both classical and medieval writers. Aristotle regarded money as “barren” and the medieval schoolmen were hostile to usury. Nevertheless, where interest fulfilled a useful social function elaborate rationalizations were developed for it. Among the classical economists, the focus of attention shifted away from ethical justification toward the problem of mechanical equilibrium. The question then became this: Is there any equilibrium rate of interest or rate of profit in the sense that where actual rates are above or below this, forces are brought into play, tending to change them toward the equilibrium? The classical economists did not provide any clear solution for this problem. They believed that the rate of interest simply followed the rate of profit, for people would not borrow or incur contractual obligations unless they could earn something more than the cost of the borrowing by investing the proceeds in enterprises or aggregates of real capital. They believed that the growth of capital itself would tend to reduce the rate of profit because of the competition of the capitalists. This doctrine is important in the Marxian dynamics in which the struggle of capital to avoid a falling rate of profit is seen as a critical factor leading, for instance, to unemployment, foreign investment, and imperialism.

In the framework of classical economics, the work of Nassau Senior deserves mention. He raised the question whether profit or interest “paid for” anything; that is, whether there was any identifiable contribution to the general product of society that would not be forthcoming if this form of income were not paid. He identified such a function and called it abstinence. Karl Marx denied the existence of any such function and argued that the social product must be attributed entirely to acts of labor, capital being merely the embodied labor of the past. On this view, profit and interest are the result of pure exploitation in the sense that they consist of an income derived from the power position of the capitalist and not from the performance of any service. Non-Marxist economists have generally followed Senior in finding some function in society that corresponds to these forms of income.

The Marginalists generally held that profit and interest were related to the marginal productivity of the extension of the period of production. Böhm-Bawerk assumed that “roundabout” processes of production would generally be more productive than processes with shorter periods of production; he thought there was a productivity of “waiting” (to use the term of Alfred Marshall) and saw the rate of interest as an inducement to the capitalist to extend the period of production.

A low rate of interest leads to concentration on longer, more roundabout processes, and a high rate of interest on shorter, less roundabout processes. There is a limit, however, on the period of production imposed by the existing stock of accumulated

capital. If one embarks on a long process with insufficient capital, he will find that he has exhausted his resources before the end of the process and before the fruits can be gathered. It is the business of the rate of interest to prevent this, and to adjust the roundaboutness of the processes used to the capital resources available. The Marginalists' theory of interest reached its clearest expression in the work of Irving Fisher. He saw an equilibrium rate of interest as determined by the interaction of two sets of forces: the impatience of consumers on the one hand, and the returns from extending the period of production on the other.

John Maynard Keynes brought a new approach. His liquidity preference theory of interest is a short-run theory of the price of contractual obligations ("bonds"), and it is essentially an application of the general theory of market price. If people as a whole decide that they want to hold a larger proportion of their assets in the form of money, and if new money is not created to satisfy this desire, there will be a net desire to sell securities and the price of securities will fall. This is the same thing as a rise in the rate of interest. Conversely, if people want to get rid of money the price of securities will rise and the rate of interest will fall. This, then, is the theory of the "market" rate of interest, by contrast with the Marginalists' theory, which concerns itself with whether or not there is a long-run equilibrium rate of interest. The controversy, therefore, between the liquidity preference theory—which regards interest as a "bribe" to prevent people holding money rather than bonds—and the time preference theory—which regards interest as a bribe to persuade people to postpone enjoyments to the future—can be resolved by placing the former in the short run and the latter in the long run.

Contemporary Questions

The middle of the 20th century saw a considerable shift in the focus of concern relating to the theory of interest. Economists seemed to lose interest in the equilibrium theory, and their main concern was with the effect of rates of interest as a part of monetary policy in the control of inflation. It was recognized that the monetary authority could control the rate of interest in the short run. The controversy lay mainly between the advocates of "monetary policy" and the advocates of "fiscal policy." If inflation is regarded as a symptom of a desire on the part of a society to consume and invest more in total than its resources permit, it is clear that the problem can be attacked either by diminishing investment or by diminishing consumption. On the whole, the attack of the advocates of monetary policy is on the side of diminishing investment, through raising rates of interest and making it harder to obtain loans, though the possibility that high rates of interest may restrict consumption is not overlooked. The alternative would seem to restrict consumption by raising taxes. This has the disadvantage of being politically unpopular. The mounting concern with economic growth, however, has raised considerable doubts about the use of high rates of interest as an instrument to control inflation. There is some doubt whether high interest rates in fact restrict

investment; if they do not, they are ineffective, and if they do, they may be harmful to economic growth. This is a serious dilemma for the advocates of monetary policy. On the other hand, it must be admitted that the type of fiscal policy that might be most desirable theoretically has achieved very limited public support.

The Ethics of Interest

The problem of the ethics of interest is still unresolved after many centuries of discussion; as long as the institution of private property is accepted, the usefulness of borrowing and lending can hardly be denied. In the long historic process of inheritance, widowhood, gain and loss, by which the distribution of the ownership of capital is determined, there is no reason to suppose that the actual ownership of capital falls into the hands of those best able to administer it. Much of the capital of an advanced society, in fact, tends to be owned by elderly widows, simply because of the greater longevity of the female. Society, therefore, needs some machinery for separating the control of capital from its ownership. Financial instruments and financial markets are the principal agency for performing this function. If all securities took the form of stocks or equities, it might be argued that contractual obligations (bonds), and therefore interest as a form of income, would not be necessary. The case for bonds and interest, however, is the case for specialization. There is a demand for many different degrees of ownership and responsibility, and interest-bearing obligations tap a market that would be hard to reach with equity securities; they are also peculiarly well adapted to the obligations of governments. The principal justification for interest and interest-bearing securities is that they provide an easy and convenient way for skilled administrators to control capital that they do not own and for the owners of capital to relinquish its control. The price society pays for this arrangement is interest.

There remains the problem of the socially optimum rate of interest. It could be argued that there is no point in paying any higher price than one needs to and that the rate of interest should be as low as is consistent with the performance of the function of the financial markets. This position, of course, would place all the burden of control of economic fluctuations on the fiscal system, and it is questionable whether this would be acceptable politically.

The ancient problem of “usury,” in the form of the exploitation of the ignorant poor by moneylenders, is still important in many parts of the world. The remedy is the development of adequate financial institutions for the needs of all classes of people rather than the attempt to prohibit or even to limit the taking of interest. The complex structure of lending institutions in a developed society—banks, building societies, land banks, cooperative banks, credit unions, and so on—testifies to the reality of the service that the lender provides and that interest pays for. The democratization of **credit**—that is, the extension of the power of borrowing to all classes in society—was one of the important social movements of the 20th century.



<https://www.youtube.com/watch?v=91D9RaqUofM>

COMPUTATION OF COST OF CAPITAL

Costs of various sources of finance are computed measured and compared while making investment decisions. Capital is raised through that source which is most economical and cheapest. Of course, the main question is how to measure cost of various sources of capital. While computing cost of capital, various factors such as requirement of the company, the circumstances under which the company raises capital the constraints of company policy etc. A company can raise funds from various sources such as debentures, public deposits, long term loans, preference shares, equity shares and retained earnings. It is very difficult to assess the cost of capital respect each of the sources of funds, because it requires us to make certain assumptions. Yet it is essential to determine the specific cost of each source of funds to arrive at the aggregate cost of capital.



Citation: <https://www.ccwater.org.uk/blog/2017/10/23/cost-of-capital-striking-the-right-balance-for-consumers/>

Computation of cost of capital is significant part of the financial management to decide the capital structure of the business concern. Investing in factories, machinery, and equipment — capital — requires money. Those funds can be borrowed (external equity), or the business can raise the funds internally, equity either from the firm's or the owner's financial resources.

- **Importance to Capital Budgeting Decision:** Capital budget decision mainly depends on the cost of capital of each source. According to net present value method, present value of cash inflow must be more than the present value of cash outflow. Therefore, cost of capital is used for capital budgeting decision.
- **Importance to Structure Decision:** Capital structure is the mix or proportion of the different types of long term securities. Company uses particular type of sources if the cost of capital is suitable. Therefore, cost of capital supports to take decision regarding structure.
- **Importance to Evolution of Financial Performance:** Cost of capital is imperative to determine which affects the capital budgeting, capital structure and value of the firm. It helps to estimate the financial performance of the firm.
- **Importance to Other Financial Decisions:** Cost of capital is also used in some other areas such as, market value of share, earning capacity of securities etc. hence, it plays a major part in the financial management.

Computation of cost of capital has two important parts:

- Measurement of specific costs
- Measurement of overall cost of capital

Measurement of Cost of Capital

Cost of capital is measured in terms of weighted average cost of capital. In this the total capital value of a firm without any outstanding warrants and the cost of its debt are included together to calculate the cost of capital.

It refers to the cost of each specific sources of finance such as:

- Cost of equity
- Cost of debt
- Cost of preference share
- Cost of retained earnings

Cost of Equity

Cost of equity capital is the rate at which investors discount the expected dividends of the firm to determine its share value. Theoretically, the cost of equity capital is

described as the “Minimum rate of return that a firm must earn on the equity financed portion of an investment project in order to leave unchanged the market price of the shares”.

Cost of equity can be calculated from the following approach:

- Dividend price (D/P) approach.
- Dividend price plus growth (D/P + g) approach.
- Earning price (E/P) approach.
- Realized yield approach.

Market price is the economic price for which a good or service is offered in the marketplace.

Dividend Price Approach: The cost of equity capital will be that rate of expected dividend which will maintain the present **market price** of equity shares.

Dividend price approach can be measured with the following formula:

$$K_e = \frac{D}{N_p}$$

Where,

K_e = Cost of equity capital

D = Dividend per equity share

N_p = Net proceeds of an equity share

Dividend Price plus Growth Approach: The cost of equity is calculated on the basis of the expected dividend rate per share plus growth in dividend.

It can be measured by the following formula:

$$K_e = \frac{D}{N_p} + g$$

Where,

K_e = Cost of equity capital

D = Dividend per equity share

g = Growth in expected dividend

N_p = Net proceeds of an equity share

Earning Price Approach: Cost of equity regulates the market price of the shares. It is based on the future earnings forecasts of the equity. The formula for calculating the cost of equity according to this approach is as follows.

$$K_e = \frac{E}{N_p}$$

Where,

K_e = Cost of equity capital

E = Earnings per share

N_p = Net proceeds of an equity share

Realized Yield Approach: It is simple method to compute cost of equity capital. Under this method, cost of equity is calculated by

$$K_e = PVf \times D$$

Where,

K_e = Cost of equity capital.

PVf = Present value of discount factor.

D = Dividend per share.

Cost of Debt

Cost of debt is the after tax cost of long-term funds through borrowing. Debt may be issued at par, at premium or at discount and also it may be perpetual or redeemable.

Debt Issued at Par: Debt issued at par means, debt is issued at the face value of the debt. It may be calculated with the following formula

$$K_d = (1 - t)R$$

Where,

K_d = Cost of debt capital

t = Tax rate

R = Debenture interest rate

Debt Issued at Premium or Discount: If the debt is issued at premium or discount, the cost of debt is calculated with the following formula.

$$K_d = \frac{I}{N_p}(1 - t)$$

Where,

K_d = Cost of debt capital

I = Annual interest payable

N_p = Net proceeds of debenture

t = Tax rate

Cost of Perpetual Debt and Redeemable Debt: It is the rate of return which the lenders expect. The debt carries a certain rate of interest.

$$K_{db} = \frac{I + 1/n(P - N_p)n}{1/n(P + N_p)/2}$$

Where,

I = Annual interest payable

P = Par value of debt

N_p = Net proceeds of the debenture

n = Number of years to maturity

K_{db} = Cost of debt before tax

Cost of debt after tax can be calculated with the following formula:

$$K_{da} = K_{db} \times (1 - t)$$

Where,

K_{da} = Cost of debt after tax

K_{db} = Cost of debt before tax

t = Tax rate

Cost of Preference Share Capital

Cost of preference share capital is the annual preference share dividend by the net proceeds from the sale of preference share. There are two types of preference shares irredeemable and redeemable.

Following formula is used to calculate the cost of redeemable preference share capital:

$$K_p = \frac{D_p}{N_p}$$

Where,

K_p = Cost of preference share

D_p = Fixed preference dividend

N_p = Net proceeds of an equity share

Cost of irredeemable preference share is calculated with the following formula:

$$K_p = \frac{D_p + (P - N_p)n}{(P + N_p)/2}$$

Where,

K_p = Cost of preference share

D_p = Fixed preference share

P = Par value of debt

N_p = Net proceeds of the preference share

n = Number of maturity period.

Cost of Retained Earnings

Retained earnings is one of the sources of finance for investment proposal. It is dissimilar from other sources like debt, equity and **preference shares**. Cost of retained earnings is the same as the cost of an equivalent fully subscribed issue of additional shares, which is measured by the cost of equity capital.

Cost of retained earnings can be calculated with the following formula:

$$K_r = K_e(1 - t)(1 - b)$$

Where,

K_r = Cost of retained earnings

K_e = Cost of equity

t = Tax rate

b = Brokerage cost

Preference shares are shares of a company's stock with dividends that are paid out to shareholders before common stock dividends are issued.

Measurement of Overall Cost of Capital

Overall cost of capital means the weighted average of the cost of each component of capital. It represents the combined cost of capital of various sources such as debt, preference, equity and retained earnings. It is also known as weighted average cost of capital and composite cost of capital. Weighted average cost of capital is the expected average future cost of funds over the long run found by weighting the cost of each specific type of capital by its proportion in the firm's capital structure.



Citation: https://aak.com/contentassets/40c84111401749a183a3268f441840ff/aak_alternative-performance-measures_16x9.jpg

The computation of the overall cost of capital (K_o) involves the following steps.

- (a) Assigning weights to specific costs.
- (b) Multiplying the cost of each of the sources by the appropriate weights.
- (c) Dividing the total weighted cost by the total weights.

The overall cost of capital can be calculated with the following formula;

$$K_o = K_d W_d + K_p W_p + K_e W_e + K_r W_r$$

Where,

K_o = Overall cost of capital

K_d = Cost of debt

K_p = Cost of preference share

K_e = Cost of equity

K_r = Cost of retained earnings

W_d = Percentage of debt of total capital

W_p = Percentage of preference share to total capital

W_e = Percentage of equity to total capital

W_r = Percentage of retained earnings

Weighted average cost of capital is calculated in the following formula also:

$$K_w = \frac{\sum XW}{\sum W}$$

Where,

K_w = Weighted average cost of capital

X = Cost of specific sources of finance

W = Weight, proportion of specific sources of finance.

To, summarize, cost of return is defined as the return the firm's investors could expect to earn if they invested in securities with comparable degrees of risk. The cost of capital signifies the overall cost of financing to the firm. It is normally the relevant discount rate to use in evaluating an investment. Cost of capital is important because it is used to assess new project of company and permits the calculations to be easy so that it has minimum return that investor expect for providing investment to the company.

If debt and equity are the only sources of finance used by the firm, the Weighted Average Cost of Capital can be calculated as follows:

WACC = Cost of equity x Proportion of equity in the financing mix + Cost of debt x Proportion of debt in the financing mix

i.e.

$$k_o = w_d k_d + w_e k_e$$

or

$$k_o = k_e [E/(D+E)] + k_d [D/(D+E)]$$

Where,

- D = proportion of debt in the financing mix
- E = proportion of equity in the financing mix



Citation: <https://www.mbaknol.com/financial-management/weighted-average-cost-of-capital-wacc/>

The weights used in determining the weighted average cost of capital of a firm are historical weights. Historical weights are based on a firm's existing capital structure. The use of these weights is based on the assumption that the firm's existing capital structure is optimal and therefore should be maintained in the future. Two types of historical weights can be used – book value weights and market value weights.

- **Book Value Weights:** The use of book value weights in calculating the firm's weighted cost of capital assumes that new financing's will be raised using the same method the firm used for its present capital structure. The weights are determined by dividing the book value of each capital component by the sum of the book values of all the long-term capital sources.
- **Market Value Weights:** Market value weights are determined by dividing the market value of each source by the sum of the market values of all sources. The use of market value weights for computing a firm's weighted **average cost** of capital is more scientific than the use of book value weights because the market values of the securities closely approximate the amount to be received from their sale.

Importance of Weighted Average Cost of Capital

The weighted average cost of capital (overall cost of capital) is of utmost importance in capital structure planning and in capital budgeting decisions.

- In capital structure planning a company strives to achieve the optimal capital structure in order to maximize the value of the firm. The optimal capital structure occurs at a point where the overall cost of capital is minimum.
- Since overall cost of capital is the minimum rate of return required by the investors, this rate is used as the discount rate or the cut-off rate for evaluating the capital budgeting proposals.

Average cost is equal to total cost divided by the number of goods produced. It is also equal to the sum of average variable costs plus average fixed costs.



ROLE MODEL

MERTON H. MILLER: AMERICAN ECONOMIST

Merton Howard Miller was an American economist known for his contribution to the theory of finance. Born into a Jewish emigrant family in the early 1920s, most of his formative years were spent during the Great Depression. Despite the odds, his parents made sure he got the best education. An alumnus of the Boston

Latin School and Harvard University, he spent the Second World War years working for the U.S. Treasury Department. Later he earned his PhD from John Hopkins University and after a one-year stint at the London School of Economics, he joined Carnegie Institute of Technology at Pittsburg. There he met Franco Modigliani and with him he co-wrote the Modigliani-Miller theorem, which opened a new vista in the field of corporate finance. Thereafter, he joined the faculty of the University of Chicago, where he continued working on corporate finance. However, from the early 1980s, his research interest shifted to the regulatory as well as financial problems faced by the financial services industry. Ten years before his death from cancer, while he was still a professor at Chicago University, Miller was awarded a share of the Nobel Memorial Prize in Economic Sciences for his “pioneering work in the theory of financial economics”.

Childhood and Early Years

- Merton Howard Miller was born on May 16, 1923 in Boston, Massachusetts. His father, Joel Miller, was a second generation Jewish emigrant, whose cigar-making family emigrated from England in the middle of the nineteenth century. He was an established attorney-at-law, later representing his state in Republican National Convention.
- Soon after his marriage to Sylvia Francis Starr, a Yiddish Russian, who had come to the USA with her family at the age of sixteen, Joel started publishing a local newspaper, mainly to supplement his income.
- While reporting certain incidents involving judges, Joel Miller became interested in law. Already an AB from Harvard University, he began to study law at Suffolk Law School, finally establishing his own legal practice in 1929, just before the onset of the Great Depression. He was then thirty-five years old.

- Merton, born in the Roaring Twenties, was his parents' only child. His early years were passed in Dorchester, a working-class area in Boston. Later as the Great Depression set in, he watched people suffering all around.
- However, Joel had by then set up his practice. Therefore, he was able to secure good education for his son, enrolling him at the prestigious Boston Latin School; a public school established in 1635 for educating the sons of the city's elite.
- Merton graduated from BSL in 1940 and then followed his father's footsteps to enter Harvard University. However, unlike his father, his main interest was in economics. He completed his course within three years, graduating magna cum laude in 1943.
- However, he received his artium baccalaureus (equivalent to Bachelor of Arts in other universities), in 1944. Meanwhile, he was called for war duty, but because he had defect in one ear, he was assigned to the Division of Tax Research of the U.S. Treasury Department as his war service.
- Sometime later, he joined the Division of Research and Statistics of the Board of Governors of the Federal Reserve System at Washington. Concurrently, he started taking evening classes in nearby George Washington University, which he hoped would help him to earn his doctoral degree.
- By 1949, Merton Miller realized that it was not possible to pay equal attention to his work and study and that he would have to make a choice. To his parents' disappointment, who wanted him to join the Harvard University, he chose Johns Hopkins University in Baltimore.
- One of the reasons why he chose Hopkins was that it also offered him a teaching opportunity, which would provide him a reasonable income. Moreover, though it was mostly known for its medical courses, it was also developing a strong financial program.
- Miller was also attracted by the fact that joining Hopkins would enable him to have Fritz Machlup, an Austrian-American economist, credited with popularizing the concept of the information society, as his doctoral guide. Working with Machlup, he received his PhD in 1952.

Joining Carnegie Institute of Technology

- In 1952, soon after receiving his PhD, Merton Miller was appointed as the Visiting Assistant Lecturer at the London School of Economics for the 1952-53 session. Immediately on his return in 1953, he joined the Graduate School of Industrial Administration in Pittsburgh, Pennsylvania.

- Located in the campus of the Carnegie Institute of Technology (now Carnegie-Mellon University), it was one of the most influential research-oriented business schools in the USA. Here he met Franco Modigliani and began collaborating with him in the area of corporate finance.
- According to some sources, both Miller and Modigliani were assigned to teach corporate finance. However, none of them had any knowledge about optimal capital structure of a firm. Therefore, they began to read the available literature diligently and were surprised to find that there was no unified or accepted principle on the subject.
- Soon they started working on it, looking at the problem from different directions. In 1958, they jointly published their first paper, 'The Cost of Capital, Corporate Finance and the Theory of Investment' in 'American Economic Review.' It later became known as Modigliani-Miller theorem or M&M theorem.
- Thereafter, they continued collaborating on the same subject, jointly publishing a number of papers on corporate finance. Among them, the most significant was 'Dividend Policy, Growth, and the Valuation of Shares'. Published in 1961, the work extended the basic results of their earlier work and showed that, given investment decisions, dividend policy is also irrelevant.

At the University of Chicago

- Also in 1961, Merton Miller moved to the Graduate School of Business at the University of Chicago as a faculty member while Modigliani joined MIT in 1962. In spite of that, they continued collaborating on several other issues until the mid-1960s.
- In 1966, Miller moved to Belgium for a one-year visiting professorship at the University of Louvain. Returning to the University of Chicago in 1967, he continued to work on corporate finance. Sometime now, he was appointed the R. McCormick Distinguished Service Professor of Finance.
- Meanwhile in 1972, working with his colleague Eugene Fama, he further developed the work he had started with Modigliani and co-wrote 'The Theory of Finance'. Incidentally, Fama was his first doctoral student.
- From the early 1980s, his focus began to shift away from capital finance. In 1983, he became the Public Director of Chicago Board of Trade, a position he held till 1985. Thereafter from 1990, he became the Public Director of the Chicago Mercantile Exchange, holding the position till his death.
- As a result of his involvements with the financial exchanges, he now became more interested in the problems faced by the financial services industry. His work now focused on the economic and regulatory problems faced by the

securities and options exchanges.

- In spite of his heavy schedule, he collaborated with others to write eight books. Among them, 'Macroeconomics: A Neoclassical Introduction', which he co-wrote with Charles W. Upton, is highly appreciated as a textbook. Published in 1986, the work was first to highlight the importance of neoclassical growth model.
- Next in 1991, he published two other important works; 'Merton Miller on Derivatives' and 'Financial Innovations and Market Volatility'. These works offer insights into the state of the contemporary market and also on the future of investment vehicles like stocks, bonds, and securities.
- In 1993, Merton Miller officially retired from his position as a professor at the University of Chicago. Thereafter, he remained as a Professor Emeritus and continued teaching for several more years until his death in 2002.

Major Works

- Merton Miller is best remembered for his pioneering research which helped to revolutionize corporate financial practices. The Modigliani-Miller theorem, which he co-authored with Franco Modigliani, formed the basis of modern thinking in capital structure. They established that there is nothing called the right debt ratio. According to the theory, corporate managers should try to maximize corporate net wealth and minimize tax liability, allowing the debt ratio chips to fall wherever they choose to fall.

Awards and Achievements

- In 1975, he became a fellow of the Econometric Society. He was also attached to the American Academy of Arts and Sciences, American Economic Association and American Finance Association.
- In 1976, he became the President of the American Finance Association.
- In 1990 Merton H. Miller was awarded the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel jointly with Harry M. Markowitz and William F. Sharpe "for their pioneering work in the theory of financial economics."

Personal Life and Legacy

- In 1943, soon after graduating from the Harvard University, Merton Miller married Eleanor Natalie Cohen, also from Boston. They had three daughters; Pamela, born in 1952; Margot in 1955 and Louise in 1958. His wife died in 1969.
- He later married Katherine Miller, but did not have any further children. While they mostly lived in their townhouse in Hyde Park, they also had a country retreat in Woodstock, where they spent their weekends, tending the garden. He was also fond of football and was a supporter of Chicago Bears.
- On June 3, 2000, Miller died in his home in Chicago from lymphoma at the age of seventy seven. He was survived by his second wife Katherine, three daughters and two grandsons, Andrew and Eric.

ETHICS

ETHICS AFFECTS THE FINANCIAL RESULTS OF A COMPANY

When you think of Enron, WorldCom, and Arthur Anderson, what do you think? Do you think of how successful and innovative they are? Do you want to be their financial leader? Their use of questionable behavior to squeeze more margin and gain more market share has caused each of these companies to be challenged. But today, we are arguing that good ethics can affect the financial results of your company in a positive fashion.



How Ethics Affects the Financial Results of a Company

Although ethics does not have a “price tag”, we have seen the impact of questionable ethics. Stock prices take a dive, customers leave, protests occur, and other companies restrict their ability to do business together. Yet some companies survive because some consumers are willing to overlook ethics in order to get the best price.

Good Ethics Affects the Financial Results Positively

One brand that comes to mind when thinking about good ethics is Patagonia, the outdoor clothing and equipment retailer. Take a look at their mission statement: “Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis.” Unfortunately, we are not able to assess the financial success of the company as it is a private entity. But Patagonia has gained the loyalty of customers. Now, they sell their products in 150 countries because of the ethical decisions they made.

Poor Ethics Affects the Financial Results Negatively

Regulators believe that Volkswagen may have lied about the fuel efficiency of their vehicles. Most aircrafts have banned the Samsung's Galaxy Note 7 because it has caused multiple injuries due to its exploding batteries. But they could have prevented this recall of three million phones by adjusting the design of the product. Unfortunately, bad ethics affect the financial results and profitability of the company. Unlike companies who hold themselves accountable and obey the law, other companies fail to maintain their integrity and seek to gain every bit of profitability by cutting much needed corners.

You as the financial leader of your company need to manage the standard of ethics maintained in your company. Consequently, this means that marketing, sales, operations, finance, manufacturing, etc., all need to adhere to a strict code of ethics to gain huge value. If one leg of the company falls short of these standards, the whole company falls.

Enron: A Company Once On Top of the World No Longer Exists

"America's Most Innovative Company," Enron, once ruled the energy world – growing and blooming into a highly profitable company. But behind closed doors, masterminds were putting together one of the greatest accounting fraud and corruption scandals in recent history. Enron and their relationship with the Arthur Anderson accounting firm is now the perfect example of how important ethics is and how unethical decisions can disrupt thousands of lives. As executives were inflating financial records and participating in insider trading, they were in a downward spiral. They inflated the numbers and prevented themselves from being caught the first time. Thus, forcing them to repeatedly inflate the numbers to cover their tracks. Unfortunately, auditors at Arthur Anderson did not report this fraudulent behavior either.

As a financial leader, you must maintain the utmost level of integrity especially when it concerns financial records and reporting. If you are looking to sell your company or undergo a capital valuation, make sure your ethics are not destroying the value of your company.

Equifax – The Enron of 2017

As the second largest security breach in the world, Equifax is facing numerous issues – including possible insider trading, not protecting the security of customers, and not promptly responding to this breach. The Wharton School at the University of Pennsylvania discusses this Equifax issue and reports that the CFO was not informed about the breach. Equifax is struggling to maintain its discretion with Social Security Numbers, the most important number Americans have. This breach impacted over 143 million Americans.

How could Equifax have prevented this breach and improved their position?

- Respond quicker to the situation
- Invest in better security measures, rather than settling with a mediocre security

Even though the breach occurred in July, most Americans did not find out until early September. We currently don't have the details about what happened during that period. But Equifax should have released information about what was going on sooner. In addition, a company that deals with highly sensitive information should have had the best possible security measures in place to prevent this type of nightmare.

Good Ethics Returns Huge Value

Unfortunately, we have seen many companies forget their ethics and tumble to their inevitable demise. But there are companies that have found that good ethics return huge value. The Guardian newspaper states that "the way the values represented by the code are embedded in the organization which makes the difference. The more the values are lived, the better and more consistent the decision-making at every level, the greater the amount of trust, the more confident and motivated the employees and the less the chance of costly damage to the company's reputation. The virtuous circle can be expected to embrace customers, suppliers and other stakeholders."

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Huge Value and Huge Profits

In a Wall Street Journal article, they conducted an experiment that measured what people would pay for an item based on ethics. They divided each testing group into three categories: highly ethical, control, and unethical. Those presented a brand of coffee beans regarded as highly ethical were willing to spend \$9.71 a pound. Conversely, those presented with a brand of coffee beans considered much less ethical were only willing to spend \$5.89. That's a staggering \$3.82! If you sell 1000 pounds of coffee beans, the difference in revenue is \$3,820.

While that may not seem like a lot, think about this. Your cost of goods sold are \$4.23. By being ethical, you have \$5.83 margin whereas the less ethical brand has only \$1.66. Which situation would you rather be in? Ethics affects the financial results of your company greatly! If you want to access huge value and huge profits, it is time to focus on your company's ethical standards. Discuss with your sales, operations, and finance departments how you can be more ethical internally and present a high ethical standard externally. If you are in position to sell or just want to prepare for a potential sale.

FOCUS ON**PROBLEMS IN DETERMINATION OF COST OF CAPITAL**

The cost of capital is one of the most crucial factors in most financial management decisions. However, the determination of the cost of capital of a firm is not an easy task. The finance manager is confronted with a large number of problems, both conceptual and practical, while determining the cost of capital of a firm. These problems in determination of cost of capital can briefly be summarized as follows:

Controversy regarding the dependence of cost of capital upon the method and level of financing

There is a major controversy whether or not the cost of capital dependent upon the method and level of financing by the company. According to the traditional theorists, the cost of capital of a firm depends upon the method and level of financing. In other words, according to them, a firm can change its overall cost of capital by changing its debt-equity mix. On the other hand, the modern theorists such as Miller the argue that is independent of the method and level of financing. In other words, the change in the debt-equity ratio does not affect the total cost of capital. An important assumption underlying MM approach is that there is perfect capital market. Since perfect capital market does not exist in practice, hence the approach is not of much practical utility.

Computation of cost of equity

The determination of the cost of equity capital is another problem. In theory, the cost of equity capital may be defined as the minimum rate of return that accompany must earn on that portion of its capital employed, which is financed by equity capital so that the market price of the shares of the company remains unchanged. In other words, it is the rate of return which the equity shareholders expect from the shares of the company which will maintain the present market price of the equity shares of the company. This means that determination of the cost of equity capital will require quantification of the expectations of the equity shareholders. This is a difficult task because the equity shareholders value the equity shares on the basis of a large number of factors, financial as well as psychological. Different authorities have tried in different ways to quantify the expectations of the equity shareholders. Their methods and calculations differ.

Computation of cost of retained earnings and depreciation funds

The cost of capital raised through retained earnings and depreciation funds will depend upon the approach adopted for computing the cost of equity capital. Since there are different views, therefore, a finance manager has to face difficult task in subscribing and selecting an appropriate approach.

Future costs versus historical costs

It is argued that for decision-making purposes, the historical cost is not relevant. The future costs should be considered. It, therefore, creates another problem whether to consider marginal cost of capital, i.e., cost of additional funds or the average cost of capital, i.e., the cost of total funds.

Problem of weights

The assignment of weights to each type of funds is a complex issue. The finance manager has to make a choice between the risk value of each source of funds and the market value of each source of funds. The results would be different in each case. It is clear from the above discussion that it is difficult to calculate the cost of capital with precision. It can never be a single given figure. At the most it can be estimated with a reasonable range of accuracy. Since the cost of capital is an important factor affecting managerial decisions, it is imperative for the finance manager to identify the range within which his cost of capital lies.

SUMMARY

- Cost of capital is an integral part of investment decision as it is used to measure the worth of investment proposal provided by the business concern. It is used as a discount rate in determining the present value of future cash flows associated with capital projects.
- Cost of capital includes the cost of debt and the cost of equity, and is used by companies internally to judge whether a capital project is worth the expenditure of resources, and by investors who use it to determine whether an investment is worth the risk compared to the return.
- Cost of capital (COC) is the rate of return that a firm must earn on its project investments to maintain its market value and attract funds. COC is the required rate of return on its investments which belongs to equity, debt and retained earnings.
- Cost of capital is vital part of investment decision as it is used to measure the value of investment proposal provided by the business concern. It is used as a discount rate to determine the present value of future cash flows related with capital projects.
- An important decision in the field of financial planning is concerning maximization of the equity shareholders' wealth. For the maximization of equity shareholders' wealth, it is necessary that market values of shares are maintained at a high level.
- Historical Cost represents the cost which has already been incurred for financing a project. It is calculated on the basis of the past data. Future cost refers to the expected cost of funds to be raised for financing a project.
- Specific costs refer to the cost of a specific source of capital such as equity shares, Preference shares, debentures, retained earnings etc. Composite cost of capital refers to the combined cost of various sources of finance.
- Average cost of capital refers to the weighted average cost of capital calculated on the basis of cost of each source of capital and weights are assigned to the ratio of their share to total capital funds.

KNOWLEDGE CHECK

1. During planning period, a marginal cost for raising a new debt is classified as
 - a. debt cost
 - b. relevant cost
 - c. borrowing cost
 - d. embedded cost
2. Cost of common stock is 14% and bond risk premium is 9% then bond yield will be
 - a. 1.56%
 - b. 5%
 - c. 23%
 - d. 64.28%
3. In weighted average cost of capital, a company can affect its capital cost through
 - a. policy of capital structure
 - b. policy of dividends
 - c. policy of investment
 - d. all of the above
4. A risk associated with project and way considered by well diversified stockholder is classified as
 - a. expected risk
 - b. beta risk
 - c. industry risk
 - d. returning risk
5. Cost of common stock is 13% and bond risk premium is 5% then bond yield would be
 - a. \$18
 - b. 2.60%
 - c. 8%
 - d. 18%
6. The key sources of value (earning an excess return) for a company can be attributed primarily to
 - a. competitive advantage and access to capital
 - b. quality management and industry attractiveness

- c. access to capital and quality management
 - d. industry attractiveness and competitive advantage
7. **The overall (weighted average) cost of capital is composed of a weighted average of**
- a. the cost of common equity and the cost of debt
 - b. the cost of common equity and the cost of preferred stock
 - c. the cost of preferred stock and the cost of debt
 - d. the cost of common equity, the cost of preferred stock, and the cost of debt
8. **What is the overall (weighted average) cost of capital in the following situation? The firm has \$10 million in long-term debt, \$2 million in preferred stock, and \$8 million in common equity -- all at market values. The before-tax cost for debt, preferred stock, and common equity forms of capital are 8%, 9%, and 15%, respectively. Assume a 40% tax rate.**
- a. 6.40%
 - b. 6.54%
 - c. 9.30%
 - d. 10.90%
9. **For which of the following costs is it generally necessary to apply a tax adjustment to a yield measure?**
- a. Cost of debt.
 - b. Cost of preferred stock.
 - c. Cost of common equity.
 - d. Cost of retained earnings.
10. **Which of the following is not a recognized approach for determining the cost of equity?**
- a. Dividend discount model approach.
 - b. Before-tax cost of preferred stock plus risk premium approach.
 - c. Capital-asset pricing model approach.
 - d. Before-tax cost of debt plus risk premium approach.

REVIEW QUESTIONS

1. What is the meaning of cost of capital?
2. Write the assumption of cost of capital.
3. Explain the classification of cost of capital.
4. Define the importance of cost of capital.
5. Write the classical theory of capital.

CRITICAL QUESTION

1. Explain the significance of the cost of capital. Also describe the measurement of cost of capital.

Check Your Result

1. (b)	2. (b)	3. (d)	4. (b)	5. (c)
6. (d)	7. (d)	8. (c)	9. (a)	10. (b)

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6

CAPITAL BUDGETING

“Capital budgeting is concerned with the allocation of the firms source financial resources among the available opportunities. The consideration of investment opportunities involves the comparison of the expected future streams of earnings from a project with the immediate and subsequent streams of earning from a project, with the immediate and subsequent streams of expenditure”.

—G.C. Philippatos

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Discuss about capital budgeting – a conceptual framework
- Understand capital budgeting techniques



KEY IDEAS

1. The word Capital refers to be the total investment of a company of firm in money, tangible and intangible assets.
2. Budgeting is the process of allocating a company's financial resources. Although practical necessity plays a vital role in this process, spending decisions come down to priorities and values, as well.
3. Capital budgeting is a difficult process to the investment of available funds. The benefit will attained only in the near future but, the future is uncertain.
4. The overall objective of capital budgeting is to maximize the profitability. If a firm concentrates return on investment, this objective can be achieved either by increasing the revenues or reducing the costs.

INTRODUCTION

Capital budgeting is a company's formal process used for evaluating potential expenditures or investments that are significant in amount. It involves the decision to invest the current funds for addition, disposition, modification or replacement of fixed assets. The large expenditures include the purchase of fixed assets like land and building, new equipment,



Citation: <https://www.edupristine.com/blog/capital-budgeting>

rebuilding or replacing existing equipment, research and development, etc. The large amounts spent for these types of projects are known as capital expenditures. Capital Budgeting is a tool for maximizing a company's future profits since most companies are able to manage only a limited number of large projects at any one time.

Capital budgeting usually involves the calculation of each project's future accounting profit by period, the cash flow by period, the present value of the cash flows after considering the time value of money, the number of years it takes for a project's cash flow to pay back the initial **cash investment**, an assessment of risk, and other factors. Capital budgeting is a tool for maximizing a company's future profits since most companies are able to manage only a limited number of large projects at any one time.



<https://www.youtube.com/watch?v=SWwfFWStups>

CAPITAL BUDGETING – A CONCEPTUAL FRAMEWORK

Capital budgeting is a fiscally responsible process that is designed to manage available resources to select the long term projects that demonstrate the highest degree of potential to yield a high return on the investment of those resources. Capital budgeting requires understanding the balance between the amount of resources that will be expended, the rate at which those resources will be utilized, and how quickly the investment will begin to show a return, reach the break-even point, and eventually begin to show a profit.



Citation: <https://tortugacapital.com/wp-content/uploads/2017/08/accountant-accounting-adviser-advisor-159804.jpeg>

The basic formula for capital budgeting is a very simple one. Essentially, capital budgeting involves comparing the discounted cash flow with the internal rate of return. Discounted cash flows have to do with the value of resources that are involved in the initial launch of the project, allowing for gradual reductions or discounts for each year of the project. Rates of return, in particular the internal rate of return, are the average rates that are earned by each resources that is invested in a project during

specified period of time. In order for the capital budgeting for a project to be attractive, the projections have to indicate several factors that will make up the outcome of the project. First, the project is expected to recoup the resources invested in the launch of the project within a reasonable period of time. Often, the earlier in the process that the investment can be covered by generated revenue, the sooner that investors begin to see profits from the venture.

Next, the project needs to be perpetuating. That is, the project must continue to generate revenue after the initial launch on a long-term basis. This factor makes fad items that are expected to have a shelf life of no more than a few months unworthy of capital budgeting. Last, the amount of resources needed to sustain the momentum of the project should be considerably less than at the point of launch. This factor indicates that the level of profitability will continue to rise for a time before leveling out. The preparation of a capital budget is a task that requires attention to detail, the ability to analyze and investment opportunity thoroughly, and an understanding of how to prepare projections that are based on solid facts. This means that financial experts are the best choice to manage capital budgeting. Experts of this type can view the data objectively and create a realistic budget that will accurately reflect the circumstances surrounding the investment opportunity.

Capital Budgeting – Definition

Capital budgeting is a method of analyzing and comparing substantial future investments and expenditures to determine which ones are most worthwhile. In other words, it is a process that company management uses to identify what capital projects will create the biggest return compared with the funds invested in the project. Each project is ranked by its potential future return, so the company management can choose which one to invest in first.

“Capital budgeting” has been formally defined as follows.

- “Capital budgeting is long-term planning for making and financing proposed capital outlay”. - Charles T. Horngreen
- “The capital budgeting generally refers to acquiring inputs with long term returns”. - Richards & Greenlaw
- “Capital budgeting involves the planning of expenditure for assets, the returns from which will be realized in future time periods”. - Milton H. Spencer

The long-term activities are those activities that influence firms operation beyond the one year period. The basic features of capital budgeting decisions are:

- There is an investment in long term activities
- Current funds are exchanged for future benefits
- The future benefits will be available to the firm over series of years.

Capital Expenditure

A capital expenditure is an expenditure incurred for acquiring or improving the fixed assets, the benefits of which are expected to be received over a number of years in future. The following are some of the examples of capital expenditure.

Fixed assets is a term used in accounting for assets and property that cannot easily be converted into cash.

- Cost of acquisition of permanent assets such as land & buildings, plant & machinery, goodwill etc.
- Cost of addition, expansion, improvement or alteration in the **fixed assets**.
- Cost of replacement of permanent assets.
- Research and development project cost etc.

Capital expenditure involves non-flexible long term commitment of funds.

A capital expenditure is an outlay of cash to acquire or upgrade a business asset. Common examples of a capital expenditure include the purchase of a new building, or the cost of significant upgrades to an existing facility. A capital expense is considered to be deductible, because it represents an improvement to the business, and it is deducted over the expected life of the item, rather than all at once as in the case of repair or maintenance expenditures.

A capital expenditure is also sometimes referred to as capital spending or a capital expense, and many publicly traded companies list their capital spending for the year in annual reports, so that stockholders can see how the company is using their money in long term planning. Most companies engage in capital spending yearly, in an attempt to constantly upgrade and improve facilities, vehicles, and equipment. Sometimes it can be difficult to determine the difference between a capital expenditure and a routine expense. In general, if the expenditure improves the value of the asset, it is a capital expense, while if it simply keeps the asset in working condition, it is a routine expense. For example, installation of a new bathroom in a rental is a capital expense, because it increases the value of the rental. Repairing the stove, however, is a routine expense designed to keep the rental in operating condition.



Citation: <https://1ra.ru/wp-content/uploads/2016/01/55518d17bf543-1.jpg>

Engaging in capital spending is a routine way to improve and expand a business, whether done on small or large scale. Large corporations may acquire additional companies, as in the case of an automotive giant which purchases another car manufacturer, while smaller businesses may consider the purchase of a new office printer to be a capital expenditure. In general, allowances are made in the budget of the company for capital spending, including unexpected ones involving the replacement of items which are no longer able to be repaired.

A capital expense is amortized over the length of the life of the investment, which may range from an expectation of five to 40 years, depending on the investment. This time period is known as a recovery period, and recovery periods for major assets are set out so that companies will know how to deduct capital expenses. The amortization means that the company cannot deduct the cost of the capital expenditure all at once, and must instead spread it out over the life of the investment. For example, someone who installs a 25,000 US Dollars (USD) fence which has a five year recovery period may deduct 5,000 USD each year for five years.

Need For Capital Investment

The factors that give rise to the need for capital investments are:

Financial Management

- Expansion
- Diversification
- Obsolescence
- Wear and tear of old equipment
- Productivity improvement
- Learning – curve effect
- Product improvement
- Replacement and modernization

The firm's value will increase in investments that are profitable. They add to the shareholders' wealth. The investment will add to the shareholders' wealth if it yields benefits, in excess of the minimum benefits as per the opportunity cost of capital.

It is clear from the above discussion what capital investment proposals involve:

- Longer gestation period
- Substantial capital outlay
- Technological considerations
- Irreversible decisions
- Environmental issues



Citation: https://horizon-media.s3-eu-west-1.amazonaws.com/s3fs-public/field/image/business-3167295_1920.jpg

Examples of Capital-Intensive Businesses

Rail companies are notoriously capital intensive, requiring regular investments in line upgrades, rolling stock and facilities. For example, in 2016 CN Rail outlined \$2.9 billion in capital improvements for the year. From the CN media release:

CN plans to spend approximately C\$1.5 billion on track infrastructure to maintain a highly efficient and safe network. This work will include the replacement of rail, ties, and other track materials, bridge improvements, and targeted branch line upgrades.

CN will invest C\$600 million in rolling stock equipment, allowing the company to tap available growth opportunities and to improve the quality of its car fleet. To handle future traffic volumes and further improve fuel efficiency, CN also expects to take delivery of 90 new high-horsepower locomotives.

The company plans to invest C\$400 million this year in a range of other key initiatives to drive productivity and to improve service for its customers. CN will also spend C\$400 million on the implementation of Positive Train Control (PTC) technology on portions of its U.S. rail network.

Even small businesses can be capital intensive. A small earth-moving or landscaping firm, for instance, may require a substantial **capital investment** in machinery such as bulldozers, backhoes, or trucks.

Capital investment refers to funds invested in a firm or enterprise for the purpose of furthering its business objectives.

Significance of Capital Budgeting

The key function of the financial management is the selection of the most profitable assortment of capital investment and it is the most important area of decision-making of the financial manager because any action taken by the manager in this area affects the working and the profitability of the firm for many years to come.

The significance of capital budgeting can be emphasized taking into consideration the very nature of the capital expenditure such as heavy investment in capital projects, long-

term implications for the firm, irreversible decisions and complicates of the decision making. Its importance can be illustrated well on the following other grounds:

- **Indirect Forecast of Sales.** The investment in fixed assets is related to future sales of the firm during the life time of the assets purchased. It shows the possibility of expanding the production facilities to cover additional sales shown in the sales budget. Any failure to make the sales forecast accurately would result in over investment or under investment in fixed assets and any erroneous forecast of asset needs may lead the firm to serious economic results.
- **Comparative Study of Alternative Projects.** Capital budgeting makes a comparative study of the alternative projects for the replacement of assets which are wearing out or are in danger of becoming obsolete so as to make the best possible investment in the replacement of assets. For this purpose, the profitability of each projects is estimated.
- **Timing of Assets-Acquisition.** Proper capital budgeting leads to proper timing of assets-acquisition and improvement in quality of assets purchased. It is due to nature of demand and supply of capital goods. The demand of capital goods does not arise until sales impinge on productive capacity and such situation occur only intermittently. On the other hand, supply of capital goods with their availability is one of the functions of capital budgeting.
- **Cash Forecast.** Capital investment requires substantial funds which can only be arranged by making determined efforts to ensure their availability at the right time. Thus it facilitates cash forecast.



Citation: <https://i2.wp.com/finansource1c.com/wp-content/uploads/2017/12/calculator-calculation-insurance-finance-53621.jpeg?fit=1920%2C1131&ssl=1>

- **Worth-Maximization of Shareholders.** The impact of long-term capital investment decisions is far reaching. It protects the interests of the shareholders and of the enterprise because it avoids over-investment and under-investment in fixed assets. By selecting the most profitable projects, the management facilitates the wealth maximization of equity share-holders.
- **Other Factors.** The following other factors can also be considered for the significance of capital budgeting decisions:
 - It assist in formulating a sound depreciation and assets replacement policy.
 - It may be useful in considering methods of cost reduction. A reduction campaign may necessitate the consideration of purchasing most up-to—date and modern equipment.
 - The feasibility of replacing manual work by machinery may be seen from the capital forecast by comparing the manual cost and the capital cost.
 - The capital cost of improving working conditions or safety can be obtained through capital expenditure forecasting.
 - It facilitates the management in making of the long-term plans and assists in the formulation of general policy.
 - It studies the impact of capital investment on the revenue expenditure of the firm such as depreciation, insure and there fixed assets.

Capital Budgeting Process

Capital budgeting is perhaps the most important decision for a financial manager. Since it involves buying expensive assets for long-term use, capital budgeting decisions may have a role to play in the future success of the company. The right decisions made by the process of capital budgeting will

Shareholder value is a business term, sometimes phrased as shareholder value maximization or as the shareholder value model, which implies that the ultimate measure of a company's success is the extent to which it enriches shareholders.

help the manager and the company to maximize the **shareholder value** which is the primary goal of any business.



Citation: <https://businessjargons.com/capital-budgeting-process.html>

The capital budgeting process includes identifying and then evaluating capital projects for the company. Capital projects are the ones where the cash flows are received by the company over long periods of time which exceeds a year. Almost all the corporate decisions that impact future earnings of the company can be studied using this framework. This process can be used to examine various decisions like buying a new machine, expanding operations at another geographic location, moving the headquarters or even replacing the old asset. These decisions have the power to impact the future success of the company. This is the reason the capital budgeting process is an invaluable part of any company.

- **Identification of Potential Investment Opportunities:** The first step in the capital budgeting process is to explore the investment opportunities. There is generally a committee that identifies the expected sales from a certain course of action, and then the investment opportunities are identified keeping these targets as a basis. Before initiating the search for the potential investments, there are certain points that need to be taken care of: monitor the external environment on a regular basis to know about the new investment opportunities, define the corporate strategy based on the analysis of the firm's strengths, weaknesses, opportunities and threats, share the corporate strategy and objectives with

the members of capital budgeting process and seek suggestions from the employees.

- **Assembling of Investment Proposals:** Once the investment opportunities are identified, several proposals are submitted by different departments. Before reaching the capital budgeting process committee, the proposals are routed through several persons who ensures that the proposals are in line with the requirements and then classify these according to their categories Viz, Replacement, Expansion, New product and Obligatory & welfare investments. This categorization is done to simplify the task of committee members and facilitate quick decision making, budgeting, and control.
- **Decision Making:** At this stage, the executives decide on the investment opportunity on the basis of the monetary power, each has with respect to the sanction of an investment proposal. For example, in a company, a plant superintendent, work manager, and the managing director may okay the investment outlays up to the limit of 15,00,000, and if the outlay exceeds beyond the limits of the lower level management, then the approval of the board of directors is required.
- **Preparation of Capital Budget and Appropriations:** The next step in the capital budgeting process is to classify the investment outlays into the smaller value and the higher value. The smaller value investments okayed by, the lower level management, are covered by the blanket appropriations for the speedy actions. And if the value of an investment outlay is higher then it is included in the capital budget after the necessary approvals. The purpose of these appropriations is to evaluate the performance of the investments at the time of the implementation.
- **Implementation:** Finally, the investment proposal is put into a concrete project. This may be time-consuming and may encounter several problems at the time of implementation. For expeditious processing, the capital budgeting process committee must ensure that the project has been formulated and the homework in terms of preliminary studies and comprehensive formulation of the project is done beforehand.
- **Performance Review:** Once the project has been implemented the next step is to compare the actual performance against the projected performance. The ideal time to compare the performance of the project is when its operations are stabilized. Through a review, the committee comes to know about the following: how realistic were the assumptions, was the decision making efficient, what were the judgmental biases and were the desires of the project sponsors fulfilled.

Thus, the Capital Budgeting, due to its complex behavior comprises a series of steps that should be strictly followed before finalizing the investments.



Citation: https://qtxasset.com/FierceCEO-1507302437/17283526416_7e5c6e438c_k.jpg/17283526416_7e5c6e438c_k.jpg?dldQ8E_eq4vj38yyCCpkMrnV4..q5jfK

Factors Influencing Investment Decisions

The main factors which, influence capital investment are:

- Technological change. In modern times, one often finds fast obsolescence of technology. New technology, which is relatively more efficient, takes the place of old technology; the latter getting downgraded to some less important applications. However, in taking a decision of this type, the management has to consider the cost of new equipment vis-a-vis the productive efficiencies of the new as well as the old equipment. However, while evaluating the cost of new equipment, the management should not take into account its full accounting cost (as the equipment lasts for years) but its incremental cost. Also, the cost of new equipment is often partly offset by the salvage value of the replaced equipment.
- Competitors' strategy. Many a time an investment is taken to maintain the competitive strength of the firm; if the competitors are installing new equipment to expand output or to improve quality of their products, the firm under consideration will have no alternative but to follow suit, else it will perish. It is, therefore, often found that the competitors' strategy regarding capital investment plays a very significant role in forcing capital decisions on a firm.

- Demand forecast. The long-run forecast of demand is one of the determinants of investment decision. If it is found that there is a market potential for the product in the long run, the dynamic firm will have to take decisions for capital expansion.
- Type of management. Whether capital investment would be encouraged or not depends, to a large extent, on the viewpoint of the management. If the management is modern and progressive in its outlook, the innovations will be encouraged, whereas a conservative management discourages innovation and fresh investments.
- Fiscal policy. Various tax policies of the government (like tax concessions on investment income, rebate on new investment, and method of allowing depreciation deduction allowance) also have favorable or unfavorable influence on capital investment.
- Cash flows. Every firm makes a cash flow budget. Its analysis influences capital investment decisions. With its help the firm plans the funds for acquiring the capital asset. The budget also shows the timing of availability of cash flows for alternative investment proposals, thereby helping the management in selecting the desired project.
- Return expected from the investment. In most of the cases, investment decisions are made in anticipation of increased return in future. While evaluating investment proposals, it is therefore essential for the firm to estimate future returns or benefits accruing from the investment.

Kinds of Capital Budgeting Decisions

The overall objective of capital budgeting is to maximize the profitability of a firm or the return on investment. This objective can be achieved either by increasing the revenues or by reducing costs. Thus, capital budgeting decisions can be broadly classified into two categories:

- those which increase revenue, and
- those which reduce costs

The first category of capital budgeting decisions are expected to increase revenue of the firm through expansion of the production capacity or size of operations by adding a new product line. The second category increases the earnings of the firm by reducing costs and includes decisions relating to replacement of obsolete, outmoded or worn out assets. In such cases, a firm has to decide whether to continue with the same asset or replace it. Such a decision is taken by the firm by evaluating the benefit from replacement of the asset in the form of reduction in operating costs and the cost/cash outlay needed for replacement of the asset. Both categories of above decisions involve

investment in fixed assets but the basic difference between the two decisions lies in the fact that increasing revenue investment decisions are subject to more uncertainty as compared to cost reducing investment decisions. Further, in view of the investment proposals under consideration, capital budgeting decisions may also be classified as.

- Accept / Reject Decisions
- Mutually Exclusive Project Decisions
- Capital Rationing Decisions.



Citation: <https://medium.com/swlh/npv-the-gold-standard-of-financial-decision-making-tools-6a7d41f1470b>

- Accept / Reject Decisions; Accept / reject decisions relate to independent project which do not compete with one another. Such decisions are generally taken on the basis of minimum return on investment. All those proposals which yield a rate of return higher than the minimum required rate of return or the cost of capital are accepted and the rest are rejected. If the proposal is accepted the firm makes investment in it, and if it is rejected the firm does not invest in the same.

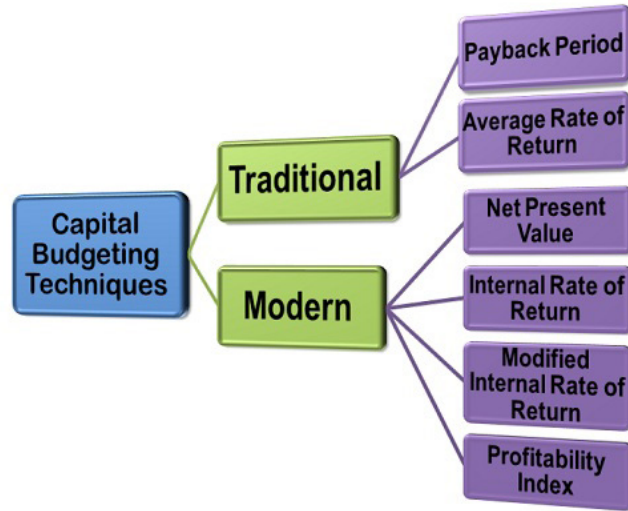
- Mutually Exclusive project Decisions; Such decisions relate to proposals which compete with one another in such a way that acceptance of one automatically excludes the acceptance of the other. Thus, one of the proposals is selected at the cost of the other. For example, a company may have the option of buying a new machine, or a second hand machine, or taking an old machine on hire or selecting a machine out of more than one brands available in the market. In such a case, the company may select one best alternative out of the various options by adopting some suitable technique or method of capital budgeting. Once one alternative is selected the others are automatically rejected.
- Capital Rationing Decisions: A firm may have several profitable investment proposals but only limited funds to invest. In such a case, these various investments compete for limited funds and, thus, the firm has to ration them. The firm effects the combination of proposals that will yield the greatest profitability by ranking them in descending order of their profitability.

CAPITAL BUDGETING TECHNIQUES

Capital budgeting is a managerial technique of planning capital expenditure in consonance with the overall objectives of the firm. Capital budgeting is a double-edged tool that analyses investment opportunities and cost of capital simultaneously while evaluating worth whileness of a project. A wide range of criteria has been suggested to judge the worth whileness of investment projects. Capital projects need to be thoroughly evaluated as to costs and benefits. The costs of capital projects include the initial investment at the inception of the project. Initial investment made in land, building, plant and machinery, equipment, furniture, fixtures etc. generally gives the installed capacity.



<https://www.youtube.com/watch?v=QRh0tiG2IVk>



Citation: <https://businessjargons.com/capital-budgeting-techniques.html>

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The Capital Budgeting Techniques are employed to evaluate the viability of long-term investments. The capital budgeting decisions are one of the critical financial decisions that relate to the selection of investment proposal or the course of action that will yield benefits in the future over the lifetime of the project. Since the capital budgeting is related to the long-term investments whose returns will be fetched in the future, certain traditional and modern capital budgeting techniques are employed by the firm to judge the feasibility of these projects. The common thing about both these methods (Traditional and Modern) is that these are based on the cash inflows and the outflows of the project.

Traditional Methods

The traditional method relies on the non-discounting criteria that do not consider the time value of money. The traditional methods comprise of the following evaluation techniques:

- Payback Period Method
- Average Rate of Return or Accounting Rate of Return Method

Payback Period

The Payback Period **helps to determine the length of time required to recover the**

initial cash outlay in the project. Simply, it is the method used to calculate the time required to earn back the cost incurred in the investments through the successive cash inflows.

The formula to calculate it:

$$\text{Payback Period} = \text{Initial Outlay} / \text{Cash Inflows}$$

Accept-Reject Criteria

The projects with the lesser payback are preferred.

Merits of Payback Period

- It is very simple to calculate and easy to understand.
- This method is helpful to analyze risk, i.e. to determine how long the investments will be at risk.
- It is beneficial for the industries where the investments become obsolete very quickly.
- It measures the liquidity of the projects.

Demerits of Payback Period

- The major drawback of this method is that it ignores the Time Value of Money.
- It does not take into consideration the cash flows that occur after the payback period.
- It does not show the liquidity position of the company, but only tells the ability of a project to return the initial outlay.
- It does not measure the profitability of the entire project since it only focuses on the time required to recover the initial investment cost.
- This method does not consider the life-span of investment, what if the life of an asset gets over very much before the initial investment cost is realized.

Thus, the payback period is the simplest method to assess the risk associated with the investment and the time required to get the initial outlay recovered.

Average Rate of Return

The Average **Rate of Return** or ARR, measures the profitability of the investments on the basis of the information taken from the financial statements rather than the cash flows. It is also called as Accounting Rate of Return.

Rate of return is the net gain or loss on an investment over a specified time period, expressed as a percentage of the investment's initial cost.

The formula for calculating the average rate of return is:

$$\text{Average Rate of Return} = \text{Average Income} / \text{Average Investment over the life of the project}$$

Where, Average Income = Average of post-tax operating profit

Average Investment = (Book value of investment in the beginning + book value of investments at the end) / 2

Accept-Reject Criteria

The projects having the rate of return higher than the minimum desired returns are accepted.

Merits of Average Rate of Return

- It is very simple to calculate and easy to understand
- The measures the profitability of the entire project since it considers the cash flows throughout the life of the project.
- It is based on the accounting information which is readily available and easily understood by the businessmen.

Demerits of Average Rate of Return

- It is based on the accounting information and not on the actual cash flows since the cash flow approach is considered superior to the accounting approach.
- It does not take into consideration, the Time Value of Money.
- It is inadequate to differentiate between the projects on the basis of amounts required for the investment, in case the proposals have the same rate of return.

Thus, this is the only method that uses the firm's financial data to assess the profitability of the project undertaken and do not rely on the future cash flows.

Modern Methods

The modern method includes the discounting criteria where the time value of money is taken into the consideration. The modern methods comprise of the following evaluation techniques:

- Net Present Value Method
- Internal Rate of Return
- Modified Internal Rate of Return
- Profitability Index

Net Present Value

The Net Present Value or NPV is a discounting technique of capital budgeting wherein the profitability of investment is measured through the difference between the cash inflows generated out of the cash outflows or the investments made in the project.

The formula to calculate the Net Present value is:

$$\text{Net present value} = \sum_{t=1}^n C_t / (1+r)^t - C_0$$

Where, C_t = cash inflow at the end of year t

n = life of the project

r = discount rate or the cost of capital

C_0 = cash outflow

Accept – Reject Criteria

If the NPV is positive, the project is accepted.

Merits of Net Present Value

- It takes into consideration the Time Value of Money.
- It measures the profitability of the entire project by considering the profits throughout its life.
- It is easy to alter the discount rate, by just changing the value of the denominator.
- This method is particularly suitable for the mutually exclusive projects.
- It is consistent with the objective of maximizing the net wealth of the company.

Demerits of Net Present Value

- The forecasting of cash flows is difficult because of several uncertainties involved in the operations of the firm.
- It is difficult to compute the discount rate precisely. And this is one of the crucial factors in the computation of net present value as with the change in the discount factor the NPV results also changes.
- Another problem is that it is an absolute measure, it accepts or rejects the projects only on the basis of its higher value irrespective of the cost of initial outlay.

Thus, to compute the Net Present value, a firm should determine the cash inflows and the outflows along with the discount rate or a rate of return that firm desires during the lifetime of the project.

Internal Rate of Return

The Internal Rate of Return or IRR is a rate that makes the net present value of any project equal to zero. In other words, the interest rate that equates the present value of cash inflow with the present value of cash outflow of any project is called as Internal Rate of Return.

Unlike the Net present value method where we assume that the discount rate is known, in the case of Internal rate of return method, we put the value of NPV zero and then find out the discount rate that satisfies this condition.

The formula to calculate IRR is:

$$CF_0 = \sum_{t=1}^n C_t / (1+r)^t$$

Where, CF_0 = Investment

C_t = Cash flow at the end of year t

r = internal rate of return

n = life of the project

Accept- Reject criteria

If the project's internal rate of return is greater than the firm's cost of capital, accept the proposal.

Merits of Internal Rate of Return

- IRR takes into account the Time Value of Money.
- It considers the cash flows over the entire life of the project.

- IRR is consistent with the goal of wealth maximization.
- While computing the NPV the discount rate taken is normally the cost of capital, but in the case of IRR, there is no need for the cost of capital because the rate of return generated by the project itself is used to evaluate the efficiency of the project. Thus, the rate is internal to the project.

Demerits of Internal Rate of Return

- It is quite difficult and involves tedious calculations.
- IRR produces multiple discount rates, which might be confusing.
- While evaluating the mutually exclusive proposals, the project having the highest value is chosen over the other that may not be necessarily the most profitable or be in line with the objectives of the firm of wealth maximization.
- It is assumed that the cash flows are reinvested at an internal rate of return.

The internal rate of return is usually the rate of return that a project earns. It is often called as the yield on investment, the marginal efficiency of capital, the marginal productivity of capital, rate of return and time adjusted rate of return.

Modified Internal Rate of Return

The Modified Internal Rate of Return or MIRR is a distinct improvement over the internal rate of return that assumes the cash flows generated from the project are reinvested at the firm's cost of capital rather than at the company's internal rate of return.

The formula to calculate the Modified Internal Rate of Return is:

$$\text{Modified Internal rate of return} = \sqrt[n]{\frac{\text{Terminal value of Cash inflows}}{\text{Present value of Cash inflows}}} - 1$$

Where, n= no. of periods

Terminal value is the future net cash inflows that are reinvested at the cost of capital.

Cost of capital refers to the opportunity cost of making a specific investment. It is the rate of return that could have been earned by putting the same money into a different investment with equal risk.

Accept-Reject Criteria

If the project's MIRR is greater than the firm's **cost of capital**, accept the proposal.

Merits of Modified Internal Rate of Return

- It takes into consideration the Time Value of Money.
- The entire profitability of the project is taken into the consideration.
- The real project's profitability can be determined since the cash generated is reinvested at the cost of capital.
- The MIRR gives the same results as that of NPV when the projects are mutually exclusive and are of the same size.

Demerits of Modified Internal Rate of Return

- It is difficult and involves tedious calculations.
- In the case of mutually exclusive projects of different sizes, the conflict may arise.

Thus, the modified internal rate of return gives more realistic and correct picture of the project's profitability as the cost of capital is more realistic than the IRR rate.

Profitability Index

The Profitability Index measures the present value of returns derived from per rupee invested. It shows the relationship between the benefits and cost of the project and therefore, it is also called as, Benefit-Cost Ratio.

The profitability Index helps in giving ranks to the projects on the basis of its value, the higher the value the top rank the project gets. Therefore, this method helps in the Capital Rationing.

The formula to calculate the **Profitability** Index is:

$$PI = \frac{\text{Present value of future cash inflows}}{\text{Present value of cash outflows}}$$

Profitability is the ability of a business to earn a profit.

Accept-Reject Criteria

The project is accepted when the value of PI exceeds 1. If the value is equal to 1, then the firm is indifferent towards the project and in case the value is less than 1 the proposal is rejected.



Citation: <http://static1.squarespace.com/static/55cf5409e4b0c6e68f740e9c/57b1e77803596ef99d95e572/5889541b3e00bed8ded9924c/1544131581860/Internal+Rate+of+Return.jpg?format=1500w>

Merits of Profitability Index

- It takes into consideration, the Time Value of Money.
- The profits are considered throughout the life of the project.
- This method helps in giving the ranks to the projects.
- It helps in assessing the risk involved in cash inflows through the cost of capital.
- It also helps in assessing the increase or decrease in the firm's value due to the investments.

Demerits of profitability Index

- Unlike the NPV, the Profitability Index may sometimes do not offer the correct decision with respect to the mutually exclusive projects.
- The cost of capital is must to compute this ratio.

It is a modernized version of Net Present Value that shows the present value of future cash inflows over the present value of cash outlay. Whereas the NPV shows the difference between the present value of future cash inflows and the present value of cash outlay. Also, the NPV is an absolute measure, whereas the Profitability Index is a relative measure.



ROLE MODEL

WARREN EDWARD BUFFETT: AN AMERICAN BUSINESS MAG- NATE, INVESTOR, SPEAKER AND PHILANTHROPIST

One of the world's wealthiest people and perhaps the most influential philanthropists of our times, Warren Buffett does not really need an introduction. He is the chairman, CEO and the largest shareholder of Berkshire

Hathaway, a multinational conglomerate holding company headquartered in Omaha. He is much respected by his peers and the world alike for his personal frugality and adherence to ethical principles when it comes to successful business management. Called the 'Oracle of Omaha', Buffett rose from a modest beginning to become one of the richest men on earth through his sheer hard work and keen sense of investing. He started demonstrating his financial abilities from his early years when he would go from door to door selling candies and soft drinks. He began investing as a teenager and had saved almost \$10,000 dollars by the age of 20. He had great business acumen and started out on his career as a stock broker. He developed his own investment principles which helped him acquire a lot of wealth; he was already a millionaire by the time he was in his early thirties. As his wealth grew, so did his desire to give back to the society—he is a notable philanthropist and has pledged to give away a significant portion of his fortunes to charity.

Childhood & Early Life

- He was one of the three children of Howard and Leila Buffett. He had two sisters. His father was a four-term U.S. congressman.
- He started his education at the Rose Hill Elementary School before shifting to Alice Deal Junior High School. He graduated from Woodrow Wilson High School in 1947.
- He had acute business sense even as a small child; he used to earn money by selling chewing gum and soft drinks. As a teenager, he became involved in a number of money making ventures and also started saving and investing his money.

- He enrolled at the Wharton School of the University of Pennsylvania in 1947 where he studied for two years. He shifted to University of Nebraska–Lincoln from where he graduated with a Bachelor of Science in business administration.
- He attended Columbia Business School and earned a Master of Science in economics in 1951. There he had the privilege of attending classes taught by Benjamin Graham and David Dodd.

Career

- He worked at his father's company, Buffett-Falk & Co. from 1951 to 1954 as an investment salesman. By the age of 20, he had already amassed savings worth almost \$10,000 in 1950 — this showed what an astute investor he was.
- He was appointed at a starting salary of \$12,000 a year at Benjamin Graham's partnership in 1954. His boss was a difficult man to work with and expected strict adherence to conventional rules of investing which Buffett's young mind questioned.
- Benjamin Graham retired and closed his partnership in 1956. By this time Buffett had a large amount of personal savings with which he opened Buffett Partnership Ltd., an investment partnership in Omaha.
- He started operating several other partnerships and by the end of the decade he had seven partnerships operating. He became a millionaire in 1962 as a result of his earnings from all his partnerships.
- He merged all the partnerships into one and invested in a textile manufacturing firm called Berkshire Hathaway. He began purchasing the shares of Berkshire Hathaway aggressively during the early 1960s and eventually took over the control of the company.
- During the late 1960s he shifted the business from textile into the insurance sector and by 1985 the last of the textile mills under Berkshire Hathaway had been sold off.
- Berkshire Hathaway purchased a 12% stake in Salomon Inc. in 1987 and became its largest shareholder; Buffett became its director. Following a scandal in 1990, John Gutfreund the CEO of Salomon Brothers left the company in 1991. Buffett took over as chairman till the crisis passed.
- Buffett began buying stocks in Coca-Cola Company in 1988 eventually purchasing up to 7% of the company for \$1.02 billion. It would prove to be one of Berkshire's best ever investments.
- He entered in \$11 billion worth of forward contracts to deliver U.S. dollars against other currencies in 2002. He had earned over \$2 billion by April 2006.

- In June 2006, Buffett made an announcement that he would be gradually giving away 85% of his Berkshire holdings to five foundations, the largest contribution of which would go to the Bill and Melinda Gates Foundation.
- He became the richest person in the world in 2008 with a total net worth estimated at \$62 billion by Forbes, overtaking Bill Gates who had been the No.1 on Forbes list for the past 13 years. The very next year, Gates regained the first position and Buffett moved to second place.

Awards & Achievements

- He was presented with the Presidential Medal of Freedom by President Barack Obama in 2011.
- He is the chairman and CEO of Berkshire Hathaway and ranks among the world's wealthiest people. Considered to be the most successful investor of the 20th century, he is also the biggest philanthropists of our times and had pledged to donate most of his fortunes to social causes.

Personal Life & Legacy

- He married Susan Thompson in 1952. The couple had three children. Susan left him in 1977 to pursue her own career and started living separately. They never divorced and remained legally married till Susan's death in 2004.
- He married his longtime partner, Astrid Menks in 2006; the couple had known each other from the time his first wife left him.
- He was diagnosed with prostate cancer in April 2012 and has successfully completed his treatment.
- He believes in giving back to the society and has pledged to give away the major portion of his wealth to charity, with 83% of it going to the Bill & Melinda Gates Foundation.

Trivia

- This billionaire is well-known for his personal frugality; he does not even carry a cell phone and prefers to travel by public transport.

FOCUS ON**Beyond Budgeting Approach**

A traditional budget is usually prepared by reviewing past year's budget and actual expenses, with addition or deduction towards extra business activities or reduced business activities planned and also by effecting changes towards changing factors, such as growth, inflation etc. It is basically to tie managers to predetermined actions in order to achieve the planned budget. It is usually based on organizational hierarchy and centralized leadership. In a business that operates in a very dynamic, rapidly changing, and innovative environment, traditional budgeting is inappropriate to exercise. Budget is a barrier for the business because the vibrant market demands flexibility, fast response, innovation, process improvement, customer focus, and shareholder value. And it is the limitation of the traditional budgeting not to be able to fulfill these demands. The dynamic driven business should keep up with the change and adaptive to recent development to achieve success. Hence Beyond Budgeting approach introduced.

The Beyond Budgeting Model is designed to overcome traditional barriers and to create a flexible, adaptable organization that gives your local managers the self-confidence and freedom to think differently, make decisions rapidly, and collaborate on innovative projects with colleagues in multi-functional teams both within your company and across its borders. Exercising beyond budgeting may have become the turnaround for many companies of their budgeting problems.

Beyond budgeting is about a performance management system, made up of a series of interdependent and interlocking process. The objective is to create an adaptive system to the real world that ideally develops the business plan from the environment, i.e. growth of markets, performance of competitors, etc. Then, instead of trying to meet a negotiated number in the budget, business should try to beat this performance standard. Thus it would not make managers feel undervalued.

The process of beyond budgeting is portrayed in 12 principles of Beyond Budgeting. The first six 'process' principles is concerning performance management systems that allows employees to response faster to customer needs and competitive environment. The second six 'leadership' principles provide a decentralization framework of responsibility to employees to facilitate them adapting quickly to potential events and improves their relative performance. Beyond budgeting can be exercised successfully by applying these principles and the business can be adaptive to the rapidly changing environment.

Beyond Budgeting Process Principles;

- Targets Set aspirational goals based on continuous relative improvement not fixed targets
- Rewards Base rewards on relative performance with hindsight not on meeting fixed targets
- Planning Make planning an inclusive and continuous process not an annual event
- Resources Make resources available on demand not through annual budget allocations
- Coordination Coordinate cross company actions dynamically not through annual plans and budgets
- Controls Base controls on KPIs, trends and relative indicators not variances against plan

Beyond Budgeting Leadership Principles;

- Governance Base governance on clear values and boundaries not on detailed rules and budgets
- Performance Build a high performance culture based on relative success not on meeting targets
- Freedom to act Devolve decision making authority to frontline teams do not micro-manage them
- Accountability Create a network of small units accountable for results not centralized hierarchies
- Customer focus everyone on improving customer outcomes not on meeting internal targets
- Information Promote open and shared information do not restrict it to those who 'need to know'

The benefits of beyond budgeting is that it will examine targets, strategies, action plans, forecasts and management reports. Comparisons might also be made against competitors and past-year performance. It will concentrate on the key drivers of business performance. The purpose is to be alert and take advantage of new opportunities and respond to potential threats by using an advanced information system to make decisions early. Speed of action and good decisions are the result of beyond budgeting.

Beyond Budgeting rejuvenates the implementation of transparency of forecasting and resource allocation. Companies, in this modern age, might want to incorporate and monitor co-ordination of skills of their employees as well as incorporate training

and development of staff and employees to manage finances in the company. This is advised to be practiced in order to ensure efficiency and effectiveness throughout all levels of hierarchy in the firm, in addition, to achieving goals without little or no supervision. In addition, style of leadership can be related to whether managers would refocus on this style of budgeting, this ensures the grasp and stronghold of the company's strategic plans.

The major change required by beyond budgeting will raise some resistance to change. Organizations will differ in scale, culture and business context. It would be challenging to demonstrate to key stakeholders that control can still be achieved without a budget. Beyond budgeting may raise issues such as doubt of loosening control, giving front-line people decision-making authority, and trusting people to act in the best interest of the business that is not easy change to contemplate. However if these issues can be handled, the business may gain success in long term.

For example, the companies that have successfully practiced beyond budgeting and abandoned the traditional budgeting system are Volvo (one of Europe's most profitable car manufacturers), IKEA (the world's largest furniture manufacturer and retailer), etc. Many organizations that have gone beyond budgeting found that their performance has improved once the budgeting process was abandoned in favor of more relative and adaptive means of planning, evaluating performance and control.

ETHICS

BUDGETING ETHICS

Managing the money that comes into and goes out of your company is hard enough to keep track of without also dealing with illegal or immoral behavior. Few things are as ripe for unethical behavior as your company's budget, especially in an organization that does not prize ethical principles. Whether it is preventing outright theft or dishonest accounting, budgetary ethics are required in any organization. Instilling them in your company requires education, preparation and a willingness to back up the rules with consequences.

Planning Ahead

Often, some of the biggest ethical budget dilemmas can be avoided simply by planning ahead. Keeping an extensive list of budget objectives and obstacles at hand can give you an idea what types of problems you will be facing down the line. By planning for good times and bad, and keeping capital on hand for your business' rainy days, you would not be tempted to cut budget corners later and do things that might be considered unethical.

Ethics and Compliance Programs

Many companies employ ethics and compliance officers to keep their operations honest. Hiring these professionals and creating departments in charge of keeping your budget and financial procedures honest sends a message to employees, managers and stockholders that ethical budgetary operations are how the company does business. Establishing this sort of ethical corporate culture and enforcing it can prevent fraud, dishonest accounting and other instances of financial malfeasance.

Train Employees to Handle Money Responsibly

While many cases of unethical budgetary behavior result from greed or ill intent, some occur because of a lack of education. Employees may be performing actions with your company's money that they do not even know are unethical or illegal. And if caught breaking the law or ethical rules, a lack of education is no excuse. Make ethics training for employees mandatory. Teach employees exactly what is expected of them and what types of actions are unethical or illegal. Also make clear to them that failure

to follow these ethical guidelines will result in strict punishment. One way to do this is by having employees sign an agreement.

Dealing with Unethical Behavior

No matter how hard you try to implement ethical budgetary procedures in your company, there's no guarantee that someone would not attempt to engage in unethical behavior. When an ethical lapse occurs, identify it and deal with it quickly. While other employees may not have any desire to take part in unethical behavior, seeing rules go unenforced undermines your efforts to institute ethical budgetary procedures. Employees who violate ethical rules must be disciplined, regardless of rank or status within the company.

SUMMARY

- Capital budgeting is a company's formal process used for evaluating potential expenditures or investments that are significant in amount. It involves the decision to invest the current funds for addition, disposition, modification or replacement of fixed assets.
- Capital Budgeting is a tool for maximizing a company's future profits since most companies are able to manage only a limited number of large projects at any one time.
- Capital budgeting requires understanding the balance between the amount of resources that will be expended, the rate at which those resources will be utilized, and how quickly the investment will begin to show a return, reach the break-even point, and eventually begin to show a profit.
- The preparation of a capital budget is a task that requires attention to detail, the ability to analyze and investment opportunity thoroughly, and an understanding of how to prepare projections that are based on solid facts.
- A capital expenditure is an outlay of cash to acquire or upgrade a business asset. Common examples of a capital expenditure include the purchase of a new building, or the cost of significant upgrades to an existing facility.
- The significance of capital budgeting can be emphasized taking into consideration the very nature of the capital expenditure such as heavy investment in capital projects, long-term implications for the firm, irreversible decisions and complicates of the decision making.

KNOWLEDGE CHECK

1. **The span of time within which the investment made for the project will be recovered by the net returns of the project is known as**
 - a. Period of return
 - b. Payback period
 - c. Span of return
 - d. None of the above
2. **Projects with are preferred**
 - a. Lower payback period
 - b. Normal payback period
 - c. Higher payback period
 - d. Any of the above
3. **..... on capital is called 'Cost of capital'.**
 - a. Lower expected return
 - b. Normally expected return
 - c. Higher expected return
 - d. None of the above
4. **The values of the future net incomes discounted by the cost of capital are called**
 - a. Average capital cost
 - b. Discounted capital cost
 - c. Net capital cost
 - d. Net present values
5. **Under Net present value criterion, a project is approved if**
 - a. Its net present value is positive
 - b. The funds are unlimited
 - c. Both (A) and (B)
 - d. None of the above

6. **The internal Rate of Return (IRR) criterion for project acceptance, under theoretically infinite funds is: accept all projects which have**
 - a. IRR equal to the cost of capital
 - b. IRR greater than the cost of capital
 - c. IRR less than the cost of capital
 - d. None of the above
7. **Which of the following criterion is often preferred**
 - a. Net present value
 - b. Profitability index
 - c. Internal Rate of Return
 - d. All of the above
8. **The project is accepted of**
 - a. if the profitability index is equal to one
 - b. The funds are unlimited
 - c. If the profitability index is greater than one
 - d. Both (b) and (c)
9. **Where capital availability is unlimited and the projects are not mutually exclusive, for the same cost of capital, following criterion is used**
 - a. Net present value
 - b. Internal Rate of Return
 - c. Profitability Index
 - d. Any of the above
10. **A project is accepted when**
 - a. Net present value is greater than zero
 - b. Internal Rate of Return will be greater than cost of capital
 - c. Profitability index will be greater than unity
 - d. Any of the above

REVIEW QUESTIONS

1. What is capital budgeting?
2. Explain the significance of budgeting.
3. What is meant by capital budgeting process?
4. Describe the factors influencing investment decisions.
5. What are the various kinds of capital budgeting decisions?

CRITICAL QUESTION

1. Explain the capital budgeting techniques. Briefly.

Check Your Result

1. (b)	2. (a)	3. (b)	4. (d)	5. (c)
6. (b)	7. (c)	8. (d)	9. (d)	10. (d)

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7

WORKING CAPITAL

“Working Capital is descriptive of that capital which is not fixed. But the more common use of the Working Capital is to consider it as the difference between the book value of the C.A. and current liabilities.”

—Hoglund. J. Bierman, and A. K. Mc Adams

LEARNING OBJECTIVES

After studying this chapter, you will be able to:

- Discuss about working capital concepts
- Explain working capital management



KEY IDEAS

1. Working capital is a financial metric which represents operating liquidity available to a business, organization or other entity, including governmental entities. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital.
2. Gross working capital is equal to current assets. Working capital is calculated as current assets minus current liabilities. If current assets are less than current liabilities, an entity has a working capital deficiency, also called a working capital deficit.
3. An increase in net working capital indicates that the business has either increased current assets (that it has increased its receivables or other current assets) or has decreased current liabilities—for example has paid off some short-term creditors, or a combination of both.
4. The working capital cycle (WCC) is the amount of time it takes to turn the net current assets and current liabilities into cash. The longer the cycle is, the longer a business is tying up capital in its working capital without earning a return on it.

INTRODUCTION

Working Capital is basically an indicator of the short-term financial position of an organization and is also a measure of its overall efficiency. Working Capital is obtained by subtracting



Citation: <https://www.bbva.com/en/eight-concepts-understand-working-capital/>

the current liabilities from the current assets. This ratio indicates whether the company possesses sufficient assets to cover its short-term debt. Working Capital indicates the liquidity levels of companies for managing day-to-day expenses and covers inventory, cash, accounts payable, accounts receivable and short-term debt that is due. Working capital is derived from several company operations such as debt and inventory management, supplier payments and collection of revenues.

Capital is another word for money and working capital is the money available to fund a company's day-to-day operations – essentially, what you have to work with. In financial speak, working capital is the difference between current assets and current liabilities. Current assets is the money you have in the bank as well as any assets you can quickly convert to cash if you needed it. Current liabilities are debts that you will repay within the year. So, working capital is what's left over when you subtract your current liabilities from what you have in the bank. In broader terms, working capital is also a gauge of a company's financial health. The larger the difference between what you own and what you owe short-term, the healthier the business. Unless, of course, what you owe far exceeds what you own. Then you have negative working capital and are close to being out of business.



<https://www.youtube.com/watch?v=eIuVfYSiVR8>

WORKING CAPITAL CONCEPTS

Working capital is a measurement of an entity's current assets, after subtracting its liabilities. Sometimes referred to as operating capital, it is a valuation of the amount of liquidity a business or organization has for the running and building of the business. Generally speaking, companies with higher amounts of working capital are better positioned for success. They have the liquid assets needed to expand their business operations as desired.



Citation: <https://blog.apruve.com/6-hacks-to-improve-your-working-capital-management>

Sometimes, a company will have a large amount of assets, but have very little with which to build the business and improve processes. Even a profitable company may have this problem. This can occur when a company has assets that are not easy to convert into cash. This measurement can be expressed as a positive or negative number. When a company has more debts than current assets, it has negative working capital. When current assets outweigh debts, it becomes positive. Changes in working capital will impact a business' cash flow. When it increases, the effect on cash flow is negative. This is often caused by the liquidation of inventory or the drawing of money from accounts that are due to be paid by the business. On the other hand, a decrease translates into less money to settle short-term debts.



Citation: <https://images.wisegeek.com/stack-of-hundred-dollar-bills-on-wooden-table.jpg>

Working capital is among the many important things that contribute to the success of a business. Without it, a business may cease to function properly or at all. Not only does a lack of capital render a company unable to build and grow, but it may also leave a company with too little cash to pay its short-term obligations. Simply put, a company with a very low amount of working capital may be at risk of running out of money.

When a company has too little working capital, it can face financial difficulties and may even be forced toward bankruptcy. This is true of both very small companies and billion-dollar organizations. A company with this problem may pay creditors late or even skip payments. It may borrow money in an attempt to remain afloat. If late payments have affected the company's credit rating, it may have difficulty obtaining a loan at an affordable **interest rate**. In some types of businesses, it is not as much of a problem to have a lower amount of working capital. Companies that are operated on a cash basis, have fast inventory turnovers, and can generate cash quickly do not necessarily need as much.

Interest rate is the **rate of interest** with no adjustment for inflation.

There are several concepts of working capital – We just saw that working capital means investment in the different current assets. Here two interpretations are possible. These are:

- The value of all the current assets and
- The value of all current assets minus the value of all current liabilities, because to the extent of current liabilities, the firm's investment in current assets stands reduced.

Accordingly we have two concepts of working capital, viz., Gross concept and Net concept.

- **Gross working capital** refers to investment in all current assets -raw materials, work-in-progress, finished goods, book debts, bank balance and cash balance. The gross concept of working capital is significant in the context of measuring working capital needed, measuring the size of the business, continued and smooth flow of operations of the business and the like.
- **Net working capital** refers to the excess of current assets over current liabilities. That is, value of current assets minus value of current liabilities (current liabilities include trade creditors, bills payable, outstanding expenses such as wages, salaries, dividend payable and tax payable, bank overdraft, etc.) The net concept of working capital is significant in the context of financing of working capital, the short term liquidity aspects of the business, and the like.

Gross working capital is a going concern concept that enables the financial planner to provide the proper amount of working capital at the right time, so that the operations of the business are not interrupted and the return on capital investment is maximized.

Net working capital may be positive or negative. A positive net working capital arises when current assets exceed current liabilities and a negative working capital occurs when current liabilities are in excess of current assets. It shows bad liquidity position. This is a qualitative concept which highlights the character of the sources from which the funds have been procured to support that portion of the current assets which is in excess of current liabilities.

Definition and Factors Affecting Working Capital

Working capital is the amount of money that a company has tied up in funding its day-to-day operations. A company has to tie up money to fund its stocks, credit sales and other current assets, but this is offset by its ability to fund this from current liabilities such as purchases on credit.

In the Annual Survey of Industries (1961), working capital is defined to include:-

“Stocks of materials, fuels, semi-finished goods including work-in-progress and finished goods and by-products; cash in hand and bank and the algebraic sum of sundry creditors as represented by (a) outstanding factory payments e.g. rent, wages, interest and dividend; b) purchase of goods and services; c) short-term loans and advances and sundry debtors comprising amounts due to the factory on account of sale of goods and services and advances towards tax payments”.

Modern industrial concerns produce an anticipation of demand. Payment has, therefore, to be made for the purchase of raw materials, the storage of finished and semi-finished goods, the work done by the staff and the workers. But, this sum cannot be got back immediately. Some time will pass before the goods are sold out and the amount spent on all these items is recovered. The working capital is needed for this purpose. It may be defined as the capital invested in the working or current assets like stock of raw materials, semi-finished and finished products, debtors, bills receivable, etc. Some writers use the term circulating capital or revolving capital for it. This is because the working capital is invested, recovered and re-invested repeatedly during the life-time of the concern. In other words, it keeps on revolving or circulating from cash to current assets and back. Apparently it would appear that the working capital requirements can be met with short-term funds. But it is forgotten that as long as the business of the concern continues, the working capital would be needed repeatedly. This means that at least a part of the working capital can be called ‘regular’ or ‘fixed’ working capital. The remaining part is known as the fluctuating or variable working capital. This is needed to meet the requirements of a raise in the volume of production during the peak periods of the year. It can, of course, be met with short-term capital.

$\text{Working capital} = \text{Current Assets} - \text{Current Liabilities}$

Current Assets are the assets, which one expects to be used, or sold, within a short time period usually one year or one operating cycle. Some examples include cash, receivables, inventory, prepaid expenses, etc. Current Liabilities are the

Unearned revenue is money received by an individual or company for a service or product that has yet to be fulfilled.

liabilities, which one expects to be settled within one year or one operating cycle. Some examples include accounts payables, **unearned revenue**, etc.



Citation: <https://i.ytimg.com/vi/2yrI2sM8LhI/maxresdefault.jpg>

According to Weston and Brigham –

“Working capital refers to a firm’s investment in short term assets, such as cash amounts receivables, inventories etc.”

Working capital is an indicator of the liquidity of the company. It is basically the ability of the company to meet up with the short-term (typically less than one year) obligations. However, quality of current assets should also be taken into account while checking the liquidity. Uncertain receivables and high inventory can often limit the capacity of working capital to judge liquidity. Also, too high an amount of working capital is a sign of inefficiency in the company. Working capital can be managed by managing the current assets such as inventories, receivables and cash and current liabilities such as accounts payable. Also the working capital requirement depends on the industry and modus operandi of the company.

The term working capital is often referred to “circulating capital” which is frequently used to denote those assets which are changed with relative speed from one form to another i.e., starting from cash, changing to raw materials, converting into work-in-progress and finished products, sale of finished products and ending with realization of cash from debtors.

The following are the factors which determine a concerns requirements of working capital:

- **The proportion of the cost of materials to total cost.** In those industries where cost of materials is a large proportion of the total cost of the goods produced or where costly material will have to be used, requirements of working capital will be rather large sums are required for this purpose. But if the importance of materials is small, as for example, in an oxygen company, the requirements of working capital will naturally be small.
- **Importance of labor.** This factor operates like the one mentioned above. If goods are manufactured with the help of labor, large sums of money will have to be kept invested as working capital. Industries where there is a great degree of mechanization, the working capital requirements are correspondingly small. It may be remembered, however, that to some extent the decision to use manual labor or machinery lies with the management. Therefore, it is possible in most cases to reduce the requirements of working capital and increase investment in fixed assets and vice versa.
- **Length of period of manufacture.** The time which elapses between the commencement and the end of the manufacturing process has an important bearing upon the requirements of working capital. If it takes long to manufacture the finished product, a large sum of money will have to be kept invested in the from of work-in progress at all stages. Hence, working capital will be required in large amounts. To give an example a baker requires a night's time to bake his daily quota of bread. His working capital is, therefore, much less than that of a ship-building concern which takes three to five years to build a ship.
- **Stocks.** Manufacturing concerns generally have to carry stocks of raw materials and other stores and also finished goods. In certain cases, manufacture is carried out only against a definite order from a customer and as soon as production in completed the gods are delivered to him. In this case, there will be no finished stocks, and to this extent, the requirements, of working capital will be reduced. The larger the stocks, whether of raw materials or finished goods, the larger will be the requirement of working capital. To some extent, the size of stocks to be carried will depend upon the decisions of management. Besides, the stocks to be carried are generally proportionate to the volume of sales.
- **Rapidity of turnover.** Turnover represents the speed with which the working capital is recovered by the sale of goods. In certain businesses, sales are made quickly so that stocks are soon exhausted and new purchases have to be made. In this manner, a small sum of money invested in stocks will result in sales of a much larger amount. Considering the volume of sales the amount of working capital requirements will be rather small in such types of businesses.

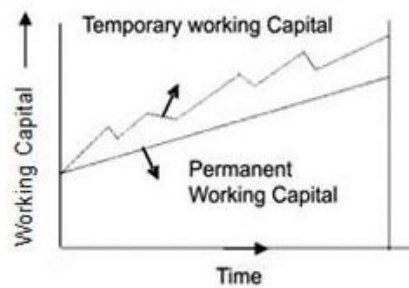
There are other business where sales are made infrequently. For instance, in case of jewelers, a piece of jewelery may stay in the show-window for a long time before it catches the fancy of a rich lady. In such cases large sums of money have to be kept invested in stocks. But a baker or a new-hawker may be able to dispose of his socks quickly, and may, therefore, need much smaller amounts by way of working capital.

- **Terms of Credit.** It goes without saying that if credit is allowed by suppliers, payment can be postponed for some time and can be made out of the sale proceeds of the goods produced. In such a case, the requirements of working capital will be reduced. The requirements will obviously be increased if credit has to be allowed to customer. The period of credit also determined the working capital requirements of a concern. If, for example, a retailer is allowed credit for a longer period than is allowed by him to his own customers, he would not need much working capital because he can pay the supplier after he has collected debts from his debtors.

At times, business needs to estimate the requirement of working capital in advance for proper control and management. The factors discussed above influence the quantum of working capital in the business. The assessment of working capital requirement is made keeping these factors in view. Each constituent of working capital retains its form for a certain period and that holding period is determined by the factors discussed above. So for correct assessment of the working capital requirement, the duration at various stages of the working capital cycle is estimated. Thereafter, proper value is assigned to the respective current assets, depending on its level of completion.

Working Capital Types

Working Capital, being lifeblood for any enterprise, its management becomes a crucial exercise for the Financial Manager of a firm. The need of working capital is directly linked to the growth of the firm. Working Capital refers to the funds invested in the current assets of a firm such as raw materials, work-in-progress, finished goods, receivables, cash etc. From the viewpoint of manufacturing process, working capital means that part of capital, which is required to keep the flow of production smooth and continuous.



Citation: <https://www.mbaknol.com/financial-management/working-capital-concepts/>

There are two kinds of working capital. These are i) permanent working capital, ii) temporary/varying working capital.

1. **Permanent Working Capital** refers to the minimum amount of all current assets that is required at all times to ensure a minimum level of uninterrupted business operations. Some minimum level of raw materials, working process, bank balance, finished goods, etc. a business has to carry all the time irrespective of the level of manufacturing/marketing operations. This level of working capital is referred to as core working capital or core current assets. Permanent working capital is defined as the “amount of current assets required to meet a firm’s long-term minimum needs”. You should note, that the level of core current assets is not, however, a constant sum all the times. For a growing business the permanent working capital will be rising, for a declining business it will be decreasing and for a stable business it will be remaining more, or less stay-put. So permanent working capital is perennially needed one though not fixed in volume. This part of the working capital being a permanent investment, needs to be financed through long-term funds. Depending upon the changes in the production and sales, the need for working capital, over and above the permanent working capital, will fluctuate.
- **Initial Working Capital:** In the initial period of its operation, a firm must need enough money to pay certain expenses before the business yields cash receipt. In the initial years the banks may not grant loans or overdrafts, sales may have to be made on credit and it may be necessary to pay the creditors immediately. Therefore the owners themselves have to provide necessary funds in the initial period, which may be known as initial working capital.
 - **Regular Working Capital:** The firm is always required to keep certain funds with it to continue the regular business operations, which is called as Regular Working Capital. It is required to maintain regular stock of raw materials and

work-in-progress and also of the finishes goods, which must be maintained permanently at a definite level. Regular working capital is the excess of current assets over current liabilities. It ensures smooth operation of business.

2. **Temporary or Varying Working Capital** varies with the volume of operations. It fluctuates with scale of operations. This is additional working capital required during up seasons over the above the fixed working capital. During seasons more production/sales take(s) place resulting in larger working capital needs. The reverse is true during off-seasons. As seasons alternate, temporary working capital moves up and down like tides. Temporary working capital is defined as the “amount of current assets that varies with seasonal requirements”. Temporary working capital can be financed through short term funds, i.e. current liabilities. When the level of temporary working capital moved up, the business might use short-term funds and when the level of temporary working capital recedes, the business might retire its short term loans.
- **Seasonal Working Capital:** Some business operations require additional working capital during a particular season. For example, the groundnut oil producers may have to purchase groundnut in a particular season and have to employ additional labor for that purpose. These may require additional funds for a temporary period, which may be called as seasonal working capital.
- **Special Working Capital:** In all enterprises, some unforeseen events do occur like sudden increase in demand, downward movement of prices of raw materials, strike or natural calamities, when extra funds are needed to tide over such situation. Such type of extra funds is called as Special working capital.

Both the kinds of working capital – permanent and temporary – are necessary to facilitate the production and sales through the operating cycle. However, the temporary working capital is created by the firm to meet the liquidity requirements that will last only temporarily.

Structure of Working Capital

The study of structure of working capital is another name for the study of working capital cycle. In other words, it can be said that the study of structure of working capital is the study of the elements of current assets viz. inventory, receivable, cash and bank balances and other liquid resources like short-term or temporary investments. Current liabilities usually comprise bank borrowings, trade credits, assessed tax and unpaid dividends or any other such things. The following points mention relating to various elements of working capital deserves.

Citation: [https://www.thebalance.com/thmb/NxtImOCfRs0Ap-MRfd1VIZwAFCE=/3456x2304/filters:fill\(auto,1\)/Good-Stocks-Often-Have-a-High-Return-on-Equity-57a521cc5f9b58974aa35285.jpg](https://www.thebalance.com/thmb/NxtImOCfRs0Ap-MRfd1VIZwAFCE=/3456x2304/filters:fill(auto,1)/Good-Stocks-Often-Have-a-High-Return-on-Equity-57a521cc5f9b58974aa35285.jpg)

Inventory is major item of current assets. The management of inventories – raw material, goods-in-process and finished goods is an important factor in the short-run liquidity positions and long-term profitability of the company.

- **Raw material inventory**– Uncertainties about the future demand for finished goods, together with the cost of adjusting production to change in demand will cause a financial manager to desire some level of raw material inventory. In the absence of such inventory, the company could respond to increased demand for finished goods only by incurring explicit clerical and other transactions costs of ordinary raw material for processing into finished goods to meet that demand. If changes in demand are frequent, these order costs may become relatively large. Moreover, attempts to purchases hastily the needed raw material may necessitate payment of premium purchases prices to obtain quick delivery and, thus, raises cost of production. Finally, unavoidable delays in acquiring raw material may cause the production process to shut down and then re-start again raising cost of production. Under these conditions the company cannot respond promptly to changes in demand without sustaining high costs. Hence, some level of raw materials inventory has to be held to reduce such costs. Determining its proper level requires an assessment of costs of buying

and holding inventories and a comparison with the costs of maintaining insufficient level of inventories.

- **Work-in-process inventory**– This inventory is built up due to production cycle. Production cycle is the time-span between introduction of raw material into production and emergence of finished product at the completion of production cycle. Till the production cycle is completed, the stock of work-in-process has to be maintained.
- **Finished goods inventory**– Finished goods are required for reasons similar to those causing the company to hold raw materials inventories. Customer's demand for finished goods is uncertain and variable. If a company carries no finished goods inventory, unanticipated increases in customer demand would require sudden increases in the rate of production to meet the demand. Such rapid increase in the rate of production may be very expensive to accomplish. Rather than loss of sales, because the additional finished goods are not immediately available or sustain high costs of rapid additional production, it may be cheaper to hold a finished goods inventory. The flexibility afforded by such an inventory allows a company to meet unanticipated customer demands at relatively lower costs than if such an inventory is not held.

Thus, to develop successfully optimum inventory policies, the management needs to know about the functions of inventory, the cost of carrying inventory, economic order quantity and safety stock. Industrial machinery is usually very costly and it is highly uneconomical to allow it to lie idle. Skilled labor also cannot be hired and fired at will. Modern requirements are also urgent. Since requirements cannot wait and since the cost of keeping machine and men idle is higher, than the cost of storing the material, it is economical to hold inventories to the required extent.

Cash collection cycle is the number of days it takes to **collect** accounts receivable.

Receivables

Many firms make credit sales and as a result thereof carry receivable as a current asset. The practice of carrying receivables

has several advantages viz., (i) reduction of collection costs over **cash collection**, (ii) reduction in the variability of sales, and (iii) increase in the level of near-term sales. While immediate collection of cash appears to be in the interest of shareholders, the cost of that policy may be very high relative to costs associated with delaying the receipt of cash by extension of credit. Imagine, for example, an electric supply company employing a person at every house constantly reading electricity meter and collecting cash from him every minute as electricity is consumed. It is far cheaper for accumulating electricity usage and bill once a month. This of course, is a decision to carry receivables on the part of the company.

It may also be true that the extension of credit by the firm to its customers may reduce the variability of sales over time. Customers confined to cash purchases may tend to purchase goods when cash is available to them. Erratic and perhaps cyclical purchasing patterns may then result unless credit can be obtained elsewhere. Even if customers do obtain credit elsewhere, they must incur additional cost of search in arranging for a loan costs that can be estimated when credit is given by a supplier. Therefore, extension of credit to customers may well smooth out of the pattern of sales and cash inflows to the firm over time since customers need not wait for some inflows of cash to make a purchase. To the extent that sales are smoothed, cost of adjusting production to changes in the level of sales should be reduced.

Finally, the extension of credit by firms may act to increase near-term sales. Customers need not wait to accumulate necessary cash to purchase an item but can acquire it immediately on credit. This behavior has the effect of shifting future sales close to the present time.

Therefore, the extension of credit by a firm and the resulting investment in receivables occurs because it pays a firm to do so. Costs of collecting revenues and adapting to fluctuating customer demands may make it desirable to offer the convenience associated with credit to firm's customers. To the extents that near sales are also increased, extension of credit is made even more attractive for the firm.

Cash and Interest-bearing liquid assets

Cash is one of the most important tools of day-to-day operation, because it is a form of liquid capital which is available for assignment to any use. Cash is often the primary factor which decides the course of business destiny. The decision to expand a business may be determined by the availability of cash and the borrowing of funds will frequently be dictated by cash position. Cash-in-hand, however, is a non-earning asset. This leads to the question as to what is the optimum level of this idle resource. This optimum depends on various factors such as the manufacturing cycle, the sale and collection cycle, age of the bills and on the maturing of debt. It also depends upon the liquidity of other current assets and the matter of expansion. While a liberal maintenance of cash provides a sense of security, a lack of sufficiency of cash hampers

day-to-day operations. Prudence, therefore, requires that no more cash should be kept on hand than the optimum required for handling miscellaneous transactions over the counter and petty disbursements etc.

It has not become a practice with business enterprises to avoid too much redundant cash by investing a portion of their earnings in assets which are susceptible to easy conversion into cash. Such assets may include government securities, bonds, debentures and shares that are known to be readily marketable and that may be liquidated at a moment's notice when cash is needed.



<https://www.youtube.com/watch?v=ekZp1DhGqJc>

WORKING CAPITAL MANAGEMENT

Working capital management refers to a company's managerial accounting strategy designed to monitor and utilize the two components of working capital, current assets and current liabilities, to ensure the most financially efficient operation of the company. The primary purpose of working capital management is to make sure the company always maintains sufficient cash flow to meet its short-term operating costs and short-term debt obligations.



Citation: <https://www.egyptobserver.com/everything-about-working-capital-management/>

Working capital management commonly involves monitoring cash flow, assets, and liabilities through the ratio analysis of key elements of operating expenses, including the working capital ratio, collection ratio, and the inventory turnover ratio. Efficient working capital management helps maintain the smooth operation of the operating cycle (the minimum amount of time required to convert net current assets and liabilities into cash) and can also help to improve the company's earnings and profitability. Management of working capital includes inventory management and management of accounts receivables and accounts payables. The main objectives of working capital management include maintaining the working capital operating cycle and ensuring its ordered operation, minimizing the cost of capital spent on the working capital, and maximizing the return on current asset investments.

Meaning of Working Capital Management

Every running business needs working capital. Even a business which is fully equipped with all types of fixed assets required is bound to collapse without (i) adequate supply of raw materials for processing; (ii) cash to pay for wages, power and other costs; (iii) creating a stock of finished goods to feed the market demand regularly; and, (iv) the ability to grant credit to its customers. All these require working capital. Working capital is thus like the lifeblood of a business. The business will not be able to carry on day-to-day activities without the availability of adequate working capital. The management of working capital or current assets is as important as or rather more, important than the management of fixed assets because the fate of most of the businesses very largely depends upon the manner in which their working capital is managed.

Decisions relating to working capital and short term financing are referred to as **working capital management**. These involve managing the relationship between a firm's short-term assets and its short-term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. Working capital management entails

Working capital management is to ensure that a firm is able to continue its operations and that it has sufficient ability to satisfy both maturing short-term debt and upcoming operational expenses.

short-term decisions, usually relating to the next one-year period and are based in part on cash flows and/or profitability.



Citation: https://www.bajajfinserv.in/to_cut_costs_without_affecting_your_business_growth_blog_img1_How%20to%20Cut%20Costs%20Without%20Affecting%20Your%20Business%20Growth.jpg

The major problem of working capital management involves the problem of decision making regarding investment in various current assets with an objective of maintaining the liquidity of funds of the firm to meet its obligations promptly and efficiently. While managing the working capital, two characteristics of current assets should be kept in mind viz. (i) short life span, and (ii) swift transformation into other form of current asset. Each constituent of current asset has comparatively very short life span. Investment remains in a particular form of current asset for a short period. The life span of current assets depends upon the time required in the activities of procurement; production, sales and collection and degree of synchronization among them. A very short life span of current assets results into swift transformation into other form of current assets for a running business.

The management of working capital encompasses the following problems:

- To decide upon the optimal level of investment in various current assets, i.e., determining the size of working capital.
- To decide upon the optimal mix of short term funds in relation to long term capital, and
- To locate the appropriate means of short term financing.

The study of working capital management is incomplete unless we have an over-all look on the management of current liabilities. Determining the appropriate levels of

current assets and current liabilities of level of working capital involves fundamental decisions regarding firm's liquidity and the composition of firm's debts.

Significance of Working Capital Management

Funds are needed in every business for carrying on day-to-day operations. Working capital funds are regarded as the life blood of a business firm. A firm can exist and survive without making profit but cannot survive without working capital funds. If a firm is not earning profit it may be termed as 'sick', but, not having working capital may cause its bankruptcy working capital in order to survive. The alternatives are not pleasant. Bankruptcy is one alternative. Being acquired on unfavorable term as another. Thus, each firm must decide how to balance the amount of working capital it holds, against the risk of failure." Working capital has acquired a great significance and sound position in the recent past for the twin objects of profitability and liquidity. In period of rising capital costs and scare funds, the working capital is one of the most important areas requiring management review. It is rightly observed that, "Constant management review is required to maintain appropriate levels in the various working capital accounts." Mainly the success of a concern depends upon proper management of working capital so "working capital management has been looked upon as the driving seat of financial manager."

It consumes a great deal of time to increase profitability as well as to maintain proper liquidity at minimum risk. There are many aspects of working capital management which make it an important function of the finance manager. In fact we need to know when to look for working capital funds, how to use them and how measure, plan and control them.



Citation: <https://www.egyptobserver.com/wp-content/uploads/2018/10/Everything-you-Need-to-Know-about-Working-Capital-Management.jpg>

Objectives of Working Capital Management

These are the two-fold objectives of the working capital management.

- Maintenance of working capital at appropriate level, and
- Availability of ample funds as and when they are needed.

In the accomplishment of these two objectives, the management has to consider the composition of current assets pool. The working capital position sets the various policies in the business with respect to general operations like purchasing, financing, expansion and dividend etc.

Difference between the Working Capital Management and the Fixed Assets Management

In fact management of working capital is similar to that of fixed assets management in the sense that in both cases a firm analyses their effects on its profitability and risk. However, fixed assets management and working capital management differ in three important ways. Firstly, in managing fixed assets time is very important. Consequently, discounting and compounding aspects of time element play a significant role in capital budgeting and a minor one in the working capital management. Secondly, large holdings of current assets specially cash, strengthen a firm's liquidity position (and reduce risks), but they also reduce overall profitability. Thirdly, the level of fixed as well as current assets depends upon the expected sales, but it is only current assets, which can be adjusted with sales fluctuations in the short-run.

Cash discount is a deduction allowed by the seller of goods or by the provider of services in order to motivate the customer to pay within a specified time.

Importance of Working Capital Management

For smooth running an enterprise, adequate amount of working capital is very essential. Efficiency in this area can help, to utilize fixed assets gainfully, to assure the firm's long-term success and to achieve the overall goal of maximization of the shareholders, fund. Shortage or bad management of cash may result in loss of **cash discount** and loss of reputation

due to non-payment of obligation on due dates. Insufficient inventories may be the main cause of production held up and it may compel the enterprises to purchase raw materials at unfavorable rates.

Like-wise facility of credit sale is also very essential for sales promotions. It is rightly observed that “many a times business failure takes place due to lack of working capital.” Adequate working capital provides a cushion for bad days, as a concern can pass its period of depression without much difficulty. The adequacy of cash and current assets together with their efficient handling virtually determines the survival or demise of a concern. An enterprise should maintain adequate working capital for its smooth functioning. Both, excessive working capital and inadequate working capital will impair the profitability and general health of a concern.



Citation: <https://www.procurious.com/blog-content/2015/12/working-capital-featured-1.jpg>

The importance of the working capital management can be judged from the following facts;

- There is a positive correlation between the sale of the product of the firm and the current assets. An increase in the sale of the project requires a corresponding increase in current assets. It is, therefore, indispensable to manage the current assets properly and efficiently.
- More than half of the total capital of the firm is generally invested in current assets. It means less than half of the capital is blocked in fixed assets. We pay

due attention to the management of fixed assets in details through the capital budgeting process. Management of working capital too, therefore, attracts the attention of the management.

- In emergency (Non availability of funds etc.) fixed assets can be acquired on lease but there is no alternative for current assets. Investment in current assets, i.e., inventory or receivable, can in no way be avoided without sustaining loss.
- Working capital needs are more often financed through outside sources, so it is necessary to utilize them in the best way possible.

Principles of Working Capital Management

Working capital management is concerned with the problem that arises in attempting to manage the current assets, the current liabilities and the inter-relationship that exist between them. The goal of working capital management is to manage a firm's current assets and current liabilities in such a way that a satisfactory level of working capital is maintained.

The financial manager must keep in mind the following principles of working capital management:

- **Principle of Optimization:** The level of working capital must be so kept that the rate of return on investment is optimized. In other words, the working capital should be maintained at an optimum level. This is the point at which the increase in cost due to decline in working capital is equal to the increase in the gain associated with it. According to the principle of optimization, the magnitude of working capital should be such that each rupee invested adds to its net value. In other words capital should be invested in each component of working capital as long as the equity position of firm increases."
- **Principle of Risk Variation:** This principle is based on the assumption that the rate of return on investment is linked with degree of risk in the business. Risk here refers to the inability of firm to maintain sufficient current assets to pay its obligations. If working capital is varied relative to sales, the amount of risk that a firm assumes is also varied and the opportunity for gain or loss is increased. In other words, there is a definite relationship between the degree of risk and the rate of return. As a firm assumes more risk, the opportunity for gain or loss increases. As the level of working capital relative to sales decreases, the degree of risk increases. When the degree of risk increases, the opportunity for gain and loss also increases. Thus, if the level of working capital goes up, amount of risk goes down, and vice-versa, the opportunity for gain is like-wise adversely affected.
- **Principle of Cost of Capital:** Each source of working capital has different cost of capital. The degree of risk also differs from one source to another. The

type of capital used to finance working capital directly affects the amount of risk that a firm assumes as well as the opportunity for gain or loss and cost of capital. A firm should raise capital in such a manner that a balance is maintained between risk and profit.

- **Principle of Maturity of Payment:** This principle states that the working capital should be so raised from different sources that the firm is able to repay them on maturity out of its inflows of funds. Otherwise the firm would fail to repay on maturity and ultimately, it would find itself into liquidation though it is earning huge profits. This implies that the firm's ability to repay its short-term debts depends not on its earnings but on the flow of cash into it.
- **Principle of Equity Position:** According to this principle, the amount of working capital invested in each component should be adequately justified by a firm's equity position. Every rupee invested in the working capital should contribute to the net worth of the firm.



Citation: <https://aicody.com/blog/images/articles/capital-and-investment/working-capital-concepts-and-significance-of-working-capital-management-bg-db1759659b32017d.jpg>

Determinants of Working Capital

There are no set rules or formulate to determine the working capital requirements of a firm. The corporate management has to consider the various factors in making decisions regarding working capital balances. An appraisal of these would provide guidance to management in estimating prospective needs. These are called as determinants of working capital.

The firm must estimate its working capital very accurately because excessive working capital results in unnecessary accumulation of inventory and wastage of capital whereas shortage of working capital affects the smooth flow of operating cycle and business fails to meet its commitment.

In this section let us examine the various determinants of working capital.

- **Nature of Business** is one of the factors. Usually in trading businesses the working capital needs are higher as most of their investment is found concentrated in stock. On the other hand, manufacturing/processing business need a relatively lower compared to that of trading business/level of working capital. The terms of 'higher' and 'lower' used above are relative and not absolute. That is, of the total capital employed in the businesses a higher or lower, as the case may be, portion is employed in current assets.
- **Sales and Demand Conditions** of a firm also affect its working capital position. It is difficult to precisely determine the relationship between volume of sales and working capital needs. Sales depend on the demand conditions. Most of the firms experience seasonal and cyclical fluctuations in the demand of their products and services. These business variations affect the working capital requirement, particularly the temporary working capital requirement of the firm. When there is an upward swing in the **economy**, the sales will increase and untimely the firm's investment in inventories and debtors will also increase. On the other hand, when there is a decline in the economy, the sales will fall and ultimately, the level of inventories and debtors will also fall. Under recessionary conditions firms try to reduce their short-term borrowings.
- **Manufacturing Policy:** The manufacturing cycle of the firm also affects the requirement of the working capital. The manufacturing cycle comprises the purchase and use of raw material and production of finished goods. Longer the manufacturing cycle, larger will be the firm's working capital requirements and vice versa. An extended manufacturing time

Economy is an area of the production, distribution, or trade, and consumption of goods and services by different agents.

span means a larger tie-up of funds in inventories. Further, the requirement of working capital also depends on whether the firm has adopted steady production policy or variable production policy.



Citation: https://www.horsum.be/sites/default/files/news/working_capital_management_men.jpg

- **Credit Policy:** In the present day circumstances, almost all units have to sell goods on credit. The nature of credit policy is an important consideration in deciding the amount of working capital requirement. The larger the volume of credit sales, the greater will be the requirement of working capital. Generally, the credit policy of an individual firm depends on the norms of the industry to which the firm belongs. **Credit periods** also influence the size and composition of working capital. When longer credit period is allowed to customers as against the one extended to the firm by its suppliers, more working capital is needed and vice versa. In the former case, there will be a relatively higher trade debtors and in the latter there will be a higher trade creditors.
- **Collection policy** is another influencing factor. A stringent collection policy might not only deter away some credit seeking customers, also force existing customers to be prompt in settling dues resulting in lower level of working capital. The opposite is true with a liberal collection policy. **Collection procedures** do influence the level of working capital. A decentralized collection of dues from customers and centralized payments to suppliers, shall reduce the size of working capital. Centralized collections and centralized payments or decentralized collections and decentralized payments would lead to a moderate

level of working capital. But with centralized collections and decentralized payments, the working capital need will be the highest.

- The **Availability of Credit** from banks and financial institutions also influences the working capital requirement of a firm. The availability of credit to a firm depends upon the creditworthiness of the firm in the money market. If a firm has good credit standing in the market, it can get credit easily on favorable terms and hence it will require less working capital.
- The **Operating Efficiency** of the firm relates to the optimum utilization of resources at minimum costs. If the firm is efficient in controlling its operating costs and utilizing its current assets, then it helps in keeping the working capital at a lower level. The use of working capital is improved and pace of cash conversion cycle is accelerated with operating efficiency.
- The **Price Level Changes** also affect the level of working capital. Generally, rising price levels will require a firm to maintain higher amount of working capital. However, the effect of rising prices may be different for different companies, as though the general price level increases, the individual prices may move differently. Therefore some firms may require more working capital, while others may require less working capital in case of price rise.
- **Inflation** has a bearing on level of working capital. Under inflationary conditions generally working capital increases, since with rising prices demand reduces resulting in stock pile-up and consequent increase in working capital.
- **Level of trading** is another factor. There are two levels of trading, viz. over trading and under trading. Over trading means the business wants to maximize turnover with inadequate stock level, hastened production cycle and swiftest collection from debtors. Eventually the working capital will be lower. It is no good, however, for the business is starved of its legitimate working capital needs. Under trading is the opposite of over-trading. There is lethargy and overt lags. There results a higher work-capital. This is no good either, since the working capital is not effectively utilized. It is wastage of capital.
- The **Growth and Expansion Plans** to be undertaken by a firm also affect its requirements of working capital. Hence the planning of the working capital requirements and its procurements must go hand in hand with the planning of the growth and expansion of the firm. Even the expansion of the sales also increases the requirements of working capital.
- **System of production process** is another factor that has a bearing. If capital intensive, high technology automated system is adopted for production, more investment in fixed assets and less investment in current assets are involved. Also, the conversion time is likely to be lower, resulting in further drop in the level of working capital. On the other hand, if labor intensive technology is adopted less investment in fixed assets and more investment in current

assets (especially work-in-progress due to inclusion of an enhanced wage component and prolonged processing) result.

- **Dividend policy:** A desire to maintain an established dividend policy may affect working capital, often changes in working capital bring about an adjustment of dividend policy. The relationship between dividend policy and working capital is well established and very few companies declare a dividend without giving due consideration to its effects on cash and their needs for cash. A shortage of working capital often acts as a powerful reason for reducing or skipping a cash dividend. On the other hand, a strong position may justify continuing dividend payment.
- Finally **rapidity of turnover** comes. There is a negative correlation between rapidity of turnover and size of working capital. When sales are fast and swift, lower is the investment in working capital. Actually stock of inventory is very minimum. But, when sales are happening far and in-between, i.e. rather slow, as in the case of jewellery, elaborate investment in working capital results. Thus faster sales lead to lower working capital and vice versa.

Approaches to Working Capital Financing

Having dealt with the size of investment in current assets, the methods of financing of working capital needs our attention. Working capital is financed both internally and externally through long-term and short-term funds, through debt and ownership funds. In financing working capital, the maturity pattern of sources of finance depended much coincide with credit period of sales for better liquidity.

Generally, it is believed that funds for acquiring the fixed assets should be raised from long term sources and short-term sources should be utilized for raising working capital. But in the recent modern enterprises, both the types of sources are utilized for financing both fixed and current assets. There are basically three approaches to financing working capital. These are: the Hedging approach, the Conservative approach and the Aggressive approach.

- **Hedging Approach:** The hedging approach is also known as the matching approach. Under this approach, the funds for acquiring fixed assets and permanent current should be acquired with long term funds and for temporary working capital short term funds should be used.
- **Conservative Approach:** This approach suggests that in addition to fixed assets and permanent current assets, even a part of variable current assets should be financed from long-term sources. The short-term sources are used only to meet the peak seasonal requirements. During the off season, the surplus fund is kept invested in marketable securities. Surplus current asset enable the firm to absorb sudden variation in sales, production plans, and procurement time

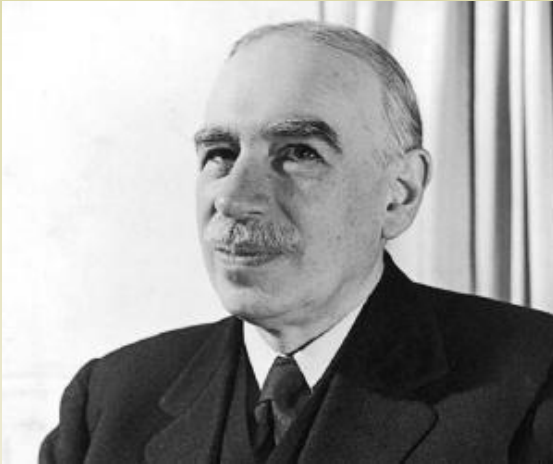
without destructing production plans. Additionally the higher liquidity level reduces the risk of insolvency. But lower risk translates into lower returns. Large investment in current asset lead to higher interest and carrying cost and encouragement for efficiency. But conservative policy will enable the firm to absorb day to day risk. It assures continuous flow of operation and illuminates worry about recurring obligation. Under this strategy, long term financing covers more than the total requirement of capital. The excess cash is invested in short-term marketable securities and in need these securities are sold off in the market to meet the urgent requirement of working capital.

- **Aggressive Approach:** This approach depends more on short-term funds. More short-term funds are used particularly for variable current assets and a part of even permanent current assets, the funds are raised from short term sources. Under this approach current assets are maintained just to meet the current liabilities without keeping cushions for the variation in working capital needs. The companies working capital is financed by long-term source of capital and seasonal variation are met through short-term borrowing. Adoption of this strategy will minimize the investment in net working capital and ultimately it lowers the cost financing working capital needs. The main drawback of this strategy is that it necessitates frequent financing and also increase, as the firm is variable to sudden shocks.

Risk preferences of management shall decide the approach to be adopted. The risk neutral will adopt the hedging approach, the risk averse will adopt the conservative approach and risk seekers will adopt the aggressive approach. Following table gives a summary of the relative costs and benefits of the three different approaches:

Factors	Conservative	Aggressive	Hedging
Liquidity	More	Less	Moderate
Profitability	Less	More	Moderate
Cost	More	Less	Moderate
Risk	Less	More	Moderate
Asset utilization	Less	More	Moderate
Working capital	More	Less	Moderate

Thus management of working capital is concerned with determining the investment needed and deciding the financing pattern. You would be now knowing that deciding the financing pattern is essentially determining the size and composition of current liabilities in relation to those of current assets. Cost of different types of funds (the long-term and short-term funds), the return on different type of current assets, ability to bear risk, desired liquidity levels, etc. have to be considered to decide working capital management related issues.



ROLE MODEL

JOHN MAYNARD KEYNES: BRITISH ECONOMIST

John Maynard Keynes was the most influential British economist of the 20th century whose ideas fundamentally changed the practice of macroeconomics and the economic policies of the world. He is regarded as the founder of macroeconomics. He introduced Keynesian principles to the world that created a revolution in economic thinking with its unconventional approach. It challenged neoclassical economics and brought to the forefront the importance of state intervention to moderate the economic activity of the country and control the 'boom' and 'bust' phases. His 1936 book 'The General Theory of Unemployment, Interest and Money' was path-breaking in terms of content. Through his book, he argued that full employment could be maintained only with the help of government spending and that it could not always be reached by making wages sufficiently low. He believed that unemployment is basically caused if people do not spend enough money. Lower spending results in demand falling further and a vicious circle commences which leads to job losses and a further fall in spending. Keynes' solution to the problem was that governments should borrow money and boost demand by pushing the money into the economy. Once the economy has recovered and is expanding, governments should pay back the loans. Keynes was also responsible for the foundation of the International Monetary Fund (IMF) and World Bank (WB). Till date, he is best remembered as one of the world's most influential economists of all time.

Childhood and Early Life

- John Maynard Keynes was born on June 5, 1883 in Cambridge to economist father John Neville Keynes and social reformer mother Florence Ada Keynes. He had two younger siblings.
- Keynes started his education at the age of five and a half. However frail health led him to be tutored at home. He entered St Faith's Preparatory School in 1892. Academically bright, he gained a scholarship that earned him a place at Eton College in 1897. It was at Eton that he developed his love for mathematics, classics and history.

Financial Management

- He won yet another scholarship in 1902 which led him to move to King's College, Cambridge. While at Cambridge, economist Alfred Marshall implored him to study economics but in vain as Keynes became interested in philosophy instead.
- In 1904, Keynes graduated with a Bachelor's degree in Mathematics. Thereafter, he spent two years at the university campus, taking part in debates, studying philosophy and informally attending economics lectures as a graduate student for a term. This marked his only formal education in economics. In 1905, Keynes studied for Tripos and in the following year took civil service exams.

Career

- In 1906, Keynes began his career in civil service as a clerk at the India Office. Though he enjoyed his work initially, he got bored by 1908 and resigned from his duty to return to Cambridge. At Cambridge, he began to work on probability theory.
- In 1909, Keynes published his first professional economics article in the 'Economics Journal', on the effect of a global economic downturn on India. The same year, he accepted the post of a lecturer in economics offered by Marshall.
- In 1913, based on his experience at the India Office, Keynes published his first book titled 'Indian Currency and Finance.' Following this publication, he was appointed to the Royal Commission on Indian Currency and Finance. At the commission, he reasonably fared well, by applying economic theory to practical problems.
- With the onset of the World War I, Keynes was called on by the British government for his expertise. In 1915, he accepted a post at the Treasury. His role included designing the terms of credit between Britain and its continental allies, and acquisition of scarce currencies.
- His sharp insight and strong acumen helped him work his ways up to the bureaucracy. In 1919, he was appointed financial representative for the Treasury to the 1919 Versailles peace conference.
- His experience at the Versailles peace conference was influential in shaping much of his future life. He was against the burdensome policies that were trolling upon the defeated Germany. He argued that high compensation rates would traumatize innocent Germans and restrict their ability to buy exports thus affecting the economy of the world but his arguments were hardly noted.
- John Maynard Keynes returned to Cambridge after resigning from his governmental duties and resumed teaching. Based on his arguments against

the compensation imposed on Germans in the damaging Treaty of Versailles, he penned a highly influential book titled, 'The Economic Consequences of the Peace' in 1919. The book was highly acclaimed and earned him international fame despite being thought of as anti-establishment.

- After the publication of the book, 'The Economic Consequences of the Peace', Keynes resigned from his post of a lecturer and stayed on as a fellow of King's College, dividing his time between Cambridge and London.
- In 1921, he published the book, 'A Treatise on Probability.' Considered an important work, it laid a philosophical and mathematical foundation of the probability theory. He dedicated much of the 1920s actively contributing to journalism and selling his work domestically and internationally as a financial consultant.
- Though his writings were mostly skeptical, he did not challenge the conventional wisdom that favored laissez-faire. However, twice his opinions would foreshadow the theoretical revolution that would be triggered in the 1930s: once in 1925 when he opposed Britain's return to gold standard and the other was before Great Depression when he foretold the unemployment issue faced by workers, laborers and miners.
- In 1925, when Winston Churchill re-established the gold standard after being backed by the Treasury and Bank of England, the standard had a depressing effect on Britain's economy. In response to it, Keynes came up with his work, 'The Economic Consequences of Mr Churchill' that finally led to the abandonment of gold standard in 1931.
- In 1930, Keynes came up with two volumes of 'Treatise of Money' in which he stated that the amount of money saved should not exceed the amount of money invested. This would lead to a rise in unemployment. He in fact stated that the correct course would be to encourage spending and discourage saving.
- When the Great Depression was at its peak, Keynes came up with the book, 'The Means to Prosperity.' The book contained policies for tackling unemployment in global recession. It contained one of the first mentions of the multiplier effect. Interestingly, though addressed to British government, the book contained advice for other governments as well on tackling global recession.
- In 1936, Keynes came up with his magnum opus, titled 'The General Theory of Unemployment, Interest and Money.' The book came at a time when the unemployment rate was over 20 per cent in Britain. It was path-breaking in terms of content and revolutionized the economic ideologies of the world. It introduced the notion of aggregate demand as the sum of consumption, investment and government spending. Keynes argued through his book that full employment could be maintained only with the help of government spending.

- He argued that full employment could not always be reached by making wages sufficiently low. Unemployment is basically caused if people don't spend enough money. Lower spending results in demand falling further and a vicious cycle commences which leads to job losses and a further fall in spending.
- Keynes' solution to the problem was that governments should borrow money and boost demand by pushing the money into the economy. Once the economy has recovered and is expanding, governments should pay back the loans.
- The General Theory of Unemployment, Interest and Money' set the foundation of modern macroeconomics. It became a benchmark for future economic thought. His ideas, which are fondly known as Keynesian principles followed one principal rule to reduce unemployment by increasing government spending even if that meant running on deficit budget.
- His proposal of government running on budget deficit was highly criticized by certain economics, who accused Keynes of supporting irresponsible governance. However, Keynes made it clear that he was a firm believer in balanced budgets and regarded the proposals for programs of public works during the Great Depression as an exceptional measure to meet the needs of exceptional circumstances.
- With the advent of the World War II, Keynes came to be regarded as the most influential economist in Britain. In 1937, he suffered from a severe heart attack. Two years later, he returned to teaching at the Cambridge.
- Meanwhile, he penned an influential book on war finances 'How to Pay for the War.' Published in 1940, the book insisted that the war effort should be financed by higher taxation and compulsory saving rather than deficit spending so as to avoid inflation.
- In 1941, John Maynard Keynes filled up a vacancy in the Court of Directors of the Bank of England and carried out a full term from the following April. Later in June 1942, he was rewarded for his service with a hereditary peerage in the King's Birthday Honours. The same year, he was made a member of the House of Lords.
- During the World War II, he played an influential role in the negotiations that shaped the post-war international economic order. He served as the leader of the British delegation and chairman of the World Bank commission in the 1944 Bretton Woods conference. He argued for a radical system for the management of currencies, proposed the creation of a common world unit of currency, and oversaw the establishment of new global institutions - World Bank and International Monetary Fund.
- Keynes' health deteriorated heavily during the post-war days. However, despite his failing health, he continued to represent United Kingdom in

international negotiations. Just before his death, he successfully obtained new and outstanding debts for the rebuilding of British economy in preferential terms.

Major Works

- John Maynard Keynes' most prominent work came in 1936 with his book 'The General Theory of Employment, Interest and Money'. The book became a benchmark for future economic thought and laid the foundation for Keynesian principles that have sustained till date. Through the book, Keynes created a revolution in economic thinking by bringing to foray the importance of budget deficit.

Awards and Achievements

- In 1917, on the King's Birthday Honors, John Maynard Keynes was appointed Companion of the Order of the Bath for his wartime work.
- In June 1942, he was rewarded with a hereditary peerage in the King's Birthday Honors for his services. On July 7 the same year, he was gazetted as 'Baron Keynes of Tilton, in the County of Sussex.

Personal Life and Legacy

- John Maynard Keynes entered into a romantic relationship with Lydia Lopokova, a well-known Russian ballerina and one of the stars of Sergei Diaghilev's 'Ballets Russes' in 1921. The two married in 1925.
- Keynes was a bisexual and had an affair with Duncan Grant in his early years. Grant served as his best man at the wedding. Keynes and Lopokova had no children.
- He suffered from bad health towards the end of his career. While negotiating for the Anglo-American loan in Savannah, Georgia, in pursuit of favorable terms for UK, he suffered from a series of heart attacks. On returning to England, he suffered from yet another heart attack on April 21, 1946, which caused his death. He was aged 62.
- In his lifetime and afterwards, Keynes has been referred to as one of the most influential economists of the 20th century. In 1999, to mark his legacy, 'TIME' magazine listed him on the 'Most Important People of the Century' list. Britain's paper, 'The Economist' described him as the 'Britain's Most Famous 20th Century Economist.

FOCUS ON**INEFFICIENT WORKING CAPITAL MANAGEMENT**

Working capital management is an important component of management of corporate finance; since it directly influences firm's profitability as well as liquidity in everyday activities. In any business organization, it is obvious that there must be sufficient working capital to run day to day operation. Therefore, to operate the business activities smoothly, working capital of firm's must be sufficient. Then, the concern of working capital management is setting sufficient (optimal level) of working capital and managing short term assets and liabilities of firms within a specified period of time, usually one year. It is obvious that, the importance of efficient working capital management is unquestionable to all business activities. Because, business capability relies on its ability to effectively use (manage) receivables, inventories and payables.

If there are excessive stock, debtors and cash and very few creditors, there will be an over investment in current asset. The inefficiency of managing working capital will cause this excessive working capital resulting in lower returns in working capital employed. And long-term funds will be unnecessarily tied up when they could be invested to earn profit. This situation is known as over-capitalization of working capital.

Under-capitalization is a situation where a company does not have funds sufficient to run the normal operation smoothly. This may happen, due to inefficient working capital or diversion of working capital funds to finance capital items. If the company faces the situation of under-capitalization, then it will face difficulty in meeting current obligation, procurement of raw material, meeting day-to-day running expense etc. The result will ultimately be reduced profitability, and reduced turnover. The finance manager must take immediate and proper step to overcome the situation by making arrangements for sufficient working capital. For this purpose he should prepare the realistic cash flow and fund flow statement of the company.

Some of the symptoms of inefficient working capital management are:

- Excessive carriage of inventory over the normal levels required for business will result in more balance in trade creditors account. More creditors balance will cause strain on the management in management of cash.
- Working capital problem will arise when there is a show down in collection of debtors.
- Sometimes capital goods will be purchased from the funds available for working capital. This will result in the working capital and its impact on the operation of the company.
- Unplanned production schedule will cause excessive stock of finished goods

or failure in meeting dispatch schedule. More funds kept in the form of cash will not generate any profit for the business.

- Inefficiency in using potential trade credit require more funds for financing working capital.
- Over-trading will cause shortage of working capital and its ultimate effect is on the operation of the company.
- Dependence in short term source of finance for financing permanent working capital causes less profitability and will increase strain on management in managing working capital.
- Inefficiency in cash management will cause embezzlement of cash.

Therefore, working capital should neither too high nor too low. Excessive working capital indicates an accumulation of idle current assets (resources) which don't contribute in generating income (profit) for the firm during the operating period. On the other side, inadequate working capital harms the credit worthiness and the day to day activities of firms and this may lead to insolvency (bankruptcy).

SUMMARY

- Working Capital is basically an indicator of the short-term financial position of an organization and is also a measure of its overall efficiency. Working Capital is obtained by subtracting the current liabilities from the current assets.
- Working Capital indicates the liquidity levels of companies for managing day-to-day expenses and covers inventory, cash, accounts payable, accounts receivable and short-term debt that is due.
- Capital is another word for money and working capital is the money available to fund a company's day-to-day operations – essentially, what you have to work with. In financial speak, working capital is the difference between current assets and current liabilities.
- Current assets is the money you have in the bank as well as any assets you can quickly convert to cash if you needed it. Current liabilities are debts that you will repay within the year.
- Gross working capital is a going concern concept that enables the financial planner to provide the proper amount of working capital at the right time, so that the operations of the business are not interrupted and the return on capital investment is maximized.
- Net working capital may be positive or negative. A positive net working capital arises when current assets exceed current liabilities and a negative working capital occurs when current liabilities are in excess of current assets. It shows bad liquidity position.
- In the initial period of its operation, a firm must need enough money to pay certain expenses before the business yields cash receipt. In the initial years the banks may not grant loans or overdrafts, sales may have to be made on credit and it may be necessary to pay the creditors immediately.

KNOWLEDGE CHECK

1. To financial analysts, “working capital” means the same thing as
 - a. total assets
 - b. fixed assets
 - c. current assets
 - d. Current assets minus current liabilities.
2. Which of the following would be consistent with an aggressive approach to financing working capital?
 - a. Financing short-term needs with short-term funds.
 - b. Financing permanent inventory buildup with long-term debt.
 - c. Financing seasonal needs with short-term funds.
 - d. Financing some long-term needs with short-term funds.
3. Which of the following would be consistent with a conservative approach to financing working capital?
 - a. Financing short-term needs with short-term funds.
 - b. Financing short-term needs with long-term debt.
 - c. Financing seasonal needs with short-term funds.
 - d. Financing some long-term needs with short-term funds.
4. Which of the following would be consistent with a hedging (maturity matching) approach to financing working capital?
 - a. Financing short-term needs with short-term funds.
 - b. Financing short-term needs with long-term debt.
 - c. Financing seasonal needs with long-term funds.
 - d. Financing some long-term needs with short-term funds.
5. Which of the following is a basic principle of finance as it relates to the management of working capital?
 - a. Profitability varies inversely with risk.
 - b. Liquidity moves together with risk.

- c. Profitability moves together with risk.
 - d. Profitability moves together with liquidity.
6. Which of the following illustrates the use of a hedging approach to financing assets?
- a. Temporary current assets financed with long-term liabilities.
 - b. Permanent working capital financed with long-term liabilities.
 - c. Short-term assets financed with equity
 - d. All assets financed with a mixture of 50% equity and 50% long-term debt.
7. In deciding the optimal level of current assets for the firm, management is confronted with
- a. a trade-off between profitability and risk
 - b. a trade-off between liquidity and risk
 - c. a trade-off between equity and debt
 - d. a trade-off between short-term versus long-term borrowing
8. Which of the following statements is most correct?
- a. For small companies, long-term debt is the principal source of external financing.
 - b. Current assets of the typical manufacturing firm account for over half of its total assets.
 - c. Strict adherence to the maturity matching approach to financing would call for all current assets to be financed solely with current liabilities.
 - d. Similar to the capital structure management, working capital management requires the financial manager to make a decision and not address the issue again for several months.
9. The amount of current assets required to meet a firm's long-term minimum needs is referred to as working capital.
- a. permanent
 - b. temporary
 - c. net
 - d. gross

10. The amount of current assets that varies with seasonal requirements is referred to as working capital.
- permanent
 - net
 - temporary
 - gross

REVIEW QUESTIONS

1. What do you mean by working capital? Also define its types.
2. Describe the definition and factors affecting working capital.
3. What is the meaning of working capital management?
4. Write the significance of working capital management.
5. Differentiate between the working capital management and fixed assets management.
6. Define the importance of working capital management.

CRITICAL QUESTION

1. Explain the structure of working capital. Also describe the principles of working capital management.

Check Your Result

1. (c)	2. (a)	3. (b)	4. (a)	5. (c)
6. (b)	7. (a)	8. (b)	9. (a)	10. (c)

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