EMERGING FINANCIAL ISSUES & CASE STUDY ANALYSIS

A FEW INDIAN REFERENCES

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First Edition

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LEARNET PUBLISHING

Title of the book: Emerging financial issues and case study analysis – A Few Indian references

Edition: First – 2022

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ISBN: 978-81-957591-0-1

MRP: 500/- INR

PUBLISHER & PRINTER: E & O LEARNET
19/B, Kali Kumar Majumder Road
P.O. – Santoshpur Avenue,Kolkata -700075
West Bengal
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IMPRINT: LEARNET PUBLISHING

Dedicated to
Late **Dwijendra Narayan Roy** (my beloved father)
Lily Roy (my beloved mother)

PREFACE

I have immense pleasure in publishing the book entitled 'Emerging financial issues and case study analysis – A Few Indian references' for the Finance students and professionals which is a simple and lucid presentation, explanation and analysis of modern and emerging financial functions. The structure of my book is as follows:

Chapter 1 : Asset Liability Management
Chapter 2 : Introduction to Financial system
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This book has been designed to equip the students pursuing study in Financial Management paper, with corporate exposure and need based practical knowledge. That is why we have kept emerging financial issues. This will help not only the students of this area but also the newly- joined corporate people who are working in the related areas.

This book will enable the students of M. Com, CFA, ICAI, ICWAI and last but not the least, the MBA even BBA students of different B-schools and Universities across our country and of many more. The theories and concepts have been simplified and lot of illustrations have been backed up which will be absolutely need-based and also student-worthy.

In this book, we have focused on how financial managers are using derivative products such as options, futures, swaps and forwards to eliminate financial risk. Besides showing financial analysis through solving case studies discussions also have taken place in the area of technical analysis so that we can offer the updated knowledge for that area which is continuing and perhaps the most important for the students to work in there in near future.

Extreme care has been taken while writing and editing this book. Still then, if there is any mistake or error, I will be grateful to those readers, who shall draw attention of those mistakes to us. We also earnestly solicit suggestions and constructive criticisms from academic colleagues, students and other persons for improving the quality of this book in the next edition.

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Chapter 1 Asset Liability Management

1.1 Concept and Definition

In banking, **asset and liability management** is the practice of managing risks that arisedue to mismatches between the assets and liabilities (debts and assets) of the bank **(Lysiak *et al.* 2022).** This can also be seen in insurance.

Banks face several risks such as the liquidity risk, interest rate risk, credit risk and operational risk. Asset Liability management (ALM) is a strategic management tool to manage interest rate risk and liquidity risk faced by banks, other financial services companies and corporations.

Banks manage the risks of Asset liability mismatch by matching the assets and liabilities according to the maturity pattern or the matching the duration, by hedging and by securitization. Much of the techniques for hedging stem from the delta hedging concepts introduced in the Black-Scholes model and in the work of Robert C. Merton and Robert A. Jarrow. The early origins of asset and liability management date to the high interest rate periods of 1975-6 and the late 1970s and early 1980s in the United States.

Asset-liability management (ALM) is a term whose meaning has evolved. It is used in slightly different ways in different contexts. ALM was pioneered by financial institutions, but corporations now also apply ALM techniques. This article describes ALM as a general concept, starting with more traditional usage.

Traditionally, banks and insurance companies used accrual accounting for essentially all their assets and liabilities. They would take on liabilities, such as deposits, life insurance policies or annuities. They would invest the proceeds from these liabilities in assets such as loans, bonds or real estate. All assets and liabilities were held at book value. Doing so disguised possible risks arising from how the assets and liabilities were structured.

Consider a bank that borrows USD 100 MM at 3.00% for a year and lends the same money at 3.20% to a highly-rated borrower for 5 years. For simplicity, assume interest rates are annually compounded and all interest accumulates to the maturity of the respective obligations. The net transaction appears profitable—the bank is earning a 20 basis point spread—but it entails considerable risk. At the end of a year, the bank will have to find new financing for the loan, which will have 4 more years before it matures. If interest rates have risen, the bank may have to pay a higher rate of interest on the new financing than the fixed 3.20 it is earning on its loan.

Suppose, at the end of a year, an applicable 4-year interest rate is 6.00%. The bank is in serious trouble. It is going to be earning 3.20% on its loan and paying 6.00% on its financing. Accrual accounting does not recognize the problem. The book value of the loan (the bank's asset) is:

100MM (1.032) = 103.2MM. [1]

The book value of the financing (the bank's liability) is:

100MM (1.030) = 103.0MM. [2]

Based upon accrual accounting, the bank earned USD 200,000 in the first year.

Market value accounting recognizes the bank's predicament. The respective market values of the bank's asset and liability are:

$$\frac{100MM(1.032)^5}{(1.060)^4} = 92.72MM \qquad [3]$$

100MM (1.030) = 103.0MM. [4]

From a market-value accounting standpoint, the bank has lost USD 10.28MM.

So which result offers a better portrayal of the bank' situation, the accrual accounting profit or the market-value accounting loss? The bank is in trouble, and the market-value loss reflects this. Ultimately, accrual accounting will recognize a similar loss. The bank will have to secure financing for the loan at the new higher rate, so it will accrue the as-yet unrecognized loss over the 4 remaining years of the position.

The problem in this example was caused by a mismatch between assets and liabilities. Prior to the 1970's, such mismatches tended not to be a significant problem. Interest rates in developed countries experienced only modest fluctuations, so losses due to asset-liability mismatches were small or trivial. Many firms intentionally mismatched their balance sheets. Because yield curves were generally upward sloping, banks could earn a spread by borrowing short and lending long.

Things started to change in the 1970s, which ushered in a period of volatile interest rates that continued into the early 1980s. US regulation Q, which had capped the interest rates that banks could pay depositors, was abandoned to stem a migration overseas of the market for USD deposits. Managers of many firms, who were accustomed to thinking in terms of accrual accounting, were slow to recognize the emerging risk. Some firms suffered staggering losses. Because the firms used accrual accounting, the result was not so much bankruptcies as rippled balance sheets.

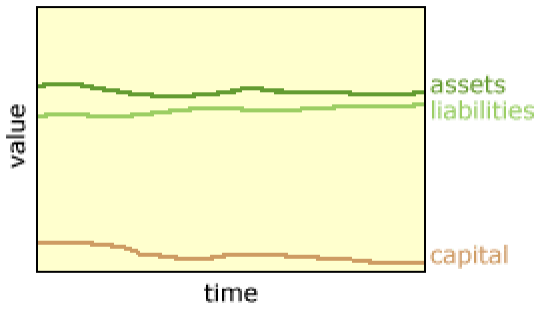
1.2 Asset-liability risk

Increasingly, managers of financial firms focused on **asset-liability risk**. The problem was not that the value of assets might fall or that the value of liabilities might rise. It was that capital might be depleted by narrowing of the difference between assets and liabilities—that the values of assets and liabilities might fail to move in tandem. Asset- liability risk is a leveraged form of risk. The capital of most financial institutions is small relative to the firm's assets or liabilities, so small percentage changes in assets or liabilities can translate into large percentage changes in capital.

Exhibit 1 illustrates the evolution over time of a hypothetical company's assets and liabilities. Over the period shown, the assets and liabilities change only slightly, but those slight changes dramatically reduce the company's capital (which, for the purpose of this example, is defined as the difference between assets and liabilities). In Exhibit 1, the capital falls by over 50%, a development that would threaten almost any institution.

Example: Asset-Liability Risk

Exhibit 1



Asset-liability risk is leveraged by the fact that the values of assets and liabilities each tend to be greater than the value of capital. In this example, modest fluctuations in values of assets and liabilities result in a 50% reduction in capital.

Accrual accounting could disguise the problem by deferring losses into the future, but it could not solve the problem. Firms responded by forming asset-liability management (ALM) departments to assess asset-liability risk. They established ALM committees comprised of senior managers to address the risk.

1.3 Techniques for assessing asset-liability risk

Techniques for assessing asset-liability risk came to include *gap analysis and duration analysis*. These facilitated techniques of gap management and duration matching of assets and liabilities. Both approaches worked well if assets and liabilities comprised fixed cash flows. Options, such as those embedded in mortgages or callable debt, posed problems that gap analysis could not address. Duration analysis could address these in theory, but implementing sufficiently sophisticated duration measures was problematic. *Accordingly, banks and insurance companies also performed scenario analysis.*

With scenario analysis, several interest rate scenarios would be specified for the next 5 or 10 years. These might assume declining rates, rising rates, a gradual decrease in rates followed by a sudden rise, etc. Scenarios might specify the behavior of the entire yield curve, so there could be scenarios with flattening yield curves, inverted yield curves, etc. Ten or twenty scenarios might be specified in all. Next, assumptions would be made about the performance

of assets and liabilities under each scenario. Assumptions might include prepayment rates on mortgages or surrender rates on insurance products.

Assumptions might also be made about the firm's performance—the rates at which new business would be acquired for various products. Based upon these assumptions, the performance of the firm's balance sheet could be projected under each scenario. If projected performance was poor under specific scenarios, the ALM committee might adjust assets or liabilities to address the indicated exposure. A shortcoming of scenario analysis is the fact that it is highly dependent on the choice of scenarios. It also requires that many assumptions be made about how specific assets or liabilities will perform under specific scenarios.

In a sense, ALM was a substitute for market-value accounting in a context of accrual accounting. It was a necessary substitute because many of the assets and liabilities of financial institutions could not—and still cannot—be marked to market. This spirit of market-value accounting was not a complete solution. A firm can earn significant mark-to-market profits but go bankrupt due to inadequate cash flow. Some techniques of ALM—such as duration analysis—do not address liquidity issues at all. Others are compatible with cash-flow analysis. With minimal modification, a gap analysis can be used for cash flow analysis. Scenario analysis can easily be used to assess liquidity risk.

Firms recognized a potential for liquidity risks to be overlooked in ALM analyses. They also recognized that many of the tools used by ALM departments could easily be applied to assess liquidity risk. Accordingly, the assessment and management of liquidity risk became a second function of ALM departments and ALM committees. ***Today, liquidity risk management is generally considered a part of ALM.***

ALM has evolved since the early 1980's. *Today, financial firms are increasingly using market-value accounting for certain business lines*. This is true of universal banks that have trading operations. For trading books, techniques of market risk management— value-at-risk, market risk limits, etc.—are more appropriate than techniques of ALM. In financial firms, ALM is associated with those assets and liabilities—those business lines—that are accounted for on an accrual basis. This includes bank lending and deposit taking. It includes essentially all traditional insurance activities.

1.4 The scope of ALM activities

The scope of ALM activities has widened. Today, ALM departments are addressing (non- trading) foreign exchange risks and other risks. Also, ALM has extended to non-financial firms. Corporations have adopted techniques of ALM to address interest-rate exposures, liquidity risk and foreign exchange risk. They are using related techniques to address commodities risks. For example, airlines' hedging of fuel prices or manufacturers' hedging of steel prices are often presented as ALM.

1.5 Liquidity risk management

Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses (Wuave *et al*. 2020). The fundamental role of banks in the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk, both of an institution-specific nature and that which affects markets as a whole. Virtually every financial transaction or commitment has implications for a bank's liquidity. **Effective liquidity risk management** helps ensure a bank's ability to meet cash flow obligations, which are uncertain as they are affected by external events and other agents' behaviour. Liquidity risk management is of paramount importance because a liquidity shortfall at a single institution can have system-wide repercussions. Financial market developments in the past decade have increased the complexity of liquidity risk and its management. E*ffective LRM* is *the management of liquidity by raising sufficient funds either by increasing liabilities or by converting assets promptly and at a reasonable cost*.

1.6 Benefits of effective liquidity management

Potential Benefits

If an appropriate liquidity management solution is effectively implemented, the corporation stands to enjoy a range of benefits (these otherwise representing opportunity costs):

***Balance consolidation*:** This is realized by eliminating the cost of maintaining cash deficits and surpluses in the same currency that could otherwise have been offset. In financial terms, it is determined by the differential between the interest rates applicable to the credit and debit

balances that are offset.

***Balance aggregation*:** Increasing the size of the aggregate cash position attracts better interest terms than those achievable on individual balances left idle or invested separately. It is a function of the interest-rate differential between the rates achieved with and without aggregation.

***Balance stability*:** Connecting multiple accounts into a larger liquidity structure has the portfolio effect of reducing overall net balance volatility. As a result, it becomes easier to identify and isolate a stable liquidity "core" within this net balance. This confers two primary advantages:

- The structure is better able to absorb unexpected cash flow events and mitigate their impact, thereby also minimizing the effect of any inaccuracies in the cash forecasting process.
- Determining accurate "time slicing" of available cash is easier, thereby facilitating more efficient distribution of investments across the maturity spectrum.

(An accurate assessment of this type of benefit is more complex and requires the utilization of statistical concepts.)

Net balance utilization: This is the minimization of the opportunity cost of being unable to extract the maximum value from the aggregate net cash flow. The scale of this benefit depends upon various factors, including:

- The size and stability of the core element;
- Medium-term cash forecasting accuracy; and
- The corporate's financial position (i.e. whether typically a net depositor or borrower).

In financial terms, the net balance utilization benefit results from the interest-rate differential between the current and the alternative usage of the net liquidity (i.e. reduced funding cost or enhanced investment yield).

***Other benefits*:** Other potential benefits derived from effective liquidity management include:

- Management cost/time savings, particularly when using passive and fully automated techniques;
- Increased visibility and control of cash flows;
- More rigorous counterparty risk management, such as on idle balances or balances invested locally with institutions not validated/approved by treasury;

- Reduced dependency on local credit facilities;
- Improved enterprise-wide liquidity risk management; and
- Greater strategic financial flexibility.

1.7 Techniques of Liquidity Management

Liquidity management techniques broadly fall into two main groups, depending upon the method used to consolidate balances:

Physical balance consolidation:

- Cash concentration, also referred to as zero balancing, sweeping or physical cash pooling.

Notional balance consolidation:

- Notional pooling.
- Interest enhancement.

a) *Cash concentration*

Cash concentration works by making transfers between master and subordinate accounts to aggregate balances physically. These transfers can be subject to various criteria specified by the client, which can include a number of options:

- The balance to be left on the subordinate account (e.g. zero or pegged/target account balancing).
- Whether flows are single or bi-directional (i.e. whether flows are always moving in a predetermined direction - such as from subordinate to master account in a one-way sweep transaction, or both).
- The frequency and timing of concentration (e.g. intra-day and/or end-of-day; single or multiple events at predetermined times).
- The layering and sequencing of the concentration activity, i.e. single or multiple accounts concentration levels (single tier: many to one, or multi-level: many to few to one).
- The control of transaction execution by applying additional discretionary configurations, including (among others) a balance threshold, minimum transaction size, credit or inter-company lending limits.

Cash concentration achieves the mobilization and consolidation of the available balances to a master account from where the net position can be invested or funded. One unique characteristic of this technique is that it does not automatically compensate a participant entity for its contribution. Instead,

this is accomplished via a separate mechanism, which can be offered as a supplementary service or independently administered by the user.

Advantages

Cash concentration combines simplicity and clarity of how funds move through a complex liquidity structure and is an accepted technique in many jurisdictions; even more regulated ones (as regards onshore transactions).

It can operate on a single or cross-entity basis. Since it establishes clear bilateral relationships across participating accounts and their respective holders, this facilitates inter-company lending arrangements if different entities are involved. If that is the case, the basic service can be supplemented with inter-company lending portfolio administration.

It is important to note that cross-entity concentration does not automatically imply the initiation of an inter-company loan; this is ultimately determined by the business relationship among these parties. For example, if an agency arrangement is in place, whereby the subordinate account entity is a collection agent for the master account entity, then the relationship has a different nature and it will be covered by the agency agreement rather than an inter-company loan document. The underlying arrangement determines how the contribution of a participant is compensated. In the case of an inter-company loan transaction, the loan terms between the two parties (e.g. interest rate, interest period and frequency of settlement) regulate such compensation. This process can be administered by the user, with the assistance of a treasury management system or similar tools, or outsourced to the banking provider who offers it as an on- demand service.

Two other important features are specific to this technique. First, by making use of inter-company transactions for multiple entity structures, the financial reporting of any cash holding is improved. Typically, a reduction in the size of the balance sheet is possible; by netting off opposite positions held by the master account holder, as well as reporting related party holdings instead of cash or short-term financing with banks.

Second, a properly engineered cash concentration structure leads to a reduction in both overall and participant-level credit requirements. This is because the group of accounts shares intra-day credit facilities with a much more limited overnight credit line at the top of the structure.

At its simplest level, cash concentration offers simplicity and improved control, in addition to the generic liquidity management benefits outlined above. Depending upon the jurisdictions involved, these benefits may also apply in the case of cross-border cash concentration.

In our experience, cash concentration techniques are more suitable for corporations that have some of the following characteristics:

- A functionally centralized (or centralizing) management culture;
- A preference for fully automated or passive management tools;
- An existing (or intended) inter-company lending framework;
- A focus on balance sheet reduction and/or tax planning;
- Aversion to complex legal documentation and cross-indemnity provisions;
- The ability to support an inter-company due diligence process, but not more complex operations;
- A desire to establish a regionally or globally consistent liquidity management model with no or few variations; and
- A desire to reduce dependency on credit.

b) Notional pooling

Notional pooling differs from cash concentration in that it operates by performing an interest calculation across a group of designated accounts on a purely notional basis. There is no physical movement or commingling of funds and therefore the original beneficial ownership structure of balances is maintained.

The other main differentiating feature of this technique relates to how it generates what is commonly referred to as the "pool net advantage", or net benefit. In the more standard version of notional pooling, an algorithm is used to determine the impact of two factors:

1. The degree of balance offsetting in any given day (i.e. the matching proportion of debit and credit balances); and
2. Any interest differential between the pool-level and account-level conditions applied (different interest rate settings can be applied to each level).

These two factors determine the pool net advantage, which is then applied

according to the client's preferred allocation method (subject to any regulatory restrictions). The resulting allocation of compensation among pool participants is more flexible than in the case of cash concentration.

One final but important consideration relates to credit requirements. A notional pooling structure is typically more credit intensive as credit lines will be required for any participating accounts that are expected to have material swings in balances or structural deficits.

Advantages

For some corporations, with concerns relating to inter-company lending documentation and administration, the fact that notional pooling does not involve any commingling of funds represents an important advantage over cash concentration. A further unique characteristic is that establishing a multi-currency notional pool is relatively straightforward and much more effective; in significant contrast with the difficulties associated with multi-currency cash concentration.

Apart from the above, notional pooling can be very convenient when dealing with issues relating to corporate culture. If local finance directors have traditionally enjoyed considerable autonomy, there may be significant internal resistance to physical movement of "their" funds via cash concentration. The fact that notional pooling leaves balances in the original entity's control, fully segregated from other funds, allays these concerns. In situations like this, notional pooling can be a useful tactical mechanism to improve liquidity management performance immediately, with a view to moving to cash concentration in the longer term (if appropriate/ advantageous).

c) Interest enhancement

Interest enhancement is conceptually similar to notional pooling in that no physical movement of funds is involved. However, it works by applying preferential pricing across a group of accounts on the basis of pre-determined criteria that are typically based on a net aggregate balance threshold. For example, a company with multiple credit balances distributed across its various operating centers may find that individually these balances only qualify for the lowest interest-rate tier payable on credit balances. By contrast, under an interest-enhancement arrangement, the total of these balances is used to

enhance the qualifying tier of the individual balances. Nevertheless, the technique must comply with any applicable banking or local regulations regarding the retribution of an account, in the form of an interest amount.

Advantages

Interest enhancement is an extremely flexible mechanism and can operate on a single or multiple currencies, as well as a single- or multiple-location basis. Unlike other liquidity techniques it has far fewer regulatory implications and is therefore well suited to both deregulated markets as well as jurisdictions with capital movement restrictions or FX controls. The main reason for this is that the mechanism works on the basis of relationship-based preferential pricing, rather than net balance treatment.

Interest enhancement is also not static in that it takes into account the dynamic profile of the relationship between bank and corporation as it changes from one day to the next. As such, the interest computation is adjusted on a daily basis to take into account all balances held with the institution and their contribution to the overall relationship to determine the appropriate pricing.

In contrast with notional pooling or cash concentration, an interest-enhancement structure involves considerably less cost and effort on a corporate's part to implement. As such, in addition to being a convenient remedy for balances in more regulated jurisdictions, it can be invaluable as a stepping stone to more sophisticated liquidity management techniques. To that end, interest enhancement also increases the degree of control and automation, as well as improving the net liquidity position of an organization.

1.8 Wealth Management –Concept, Services, Importance, Range

The term wealth management formed with two words wealth & Management. The Meaning of Management we have already seen in the steering introduction. The meaning of wealth is – Funds, Assets, investments and cash it means the term wealth management deft with funds Asset, instrument, cash and any other item of similar nature. While defining wealth Management we have to think in planned manner. "Wealth Management is an all-inclusive set of strategies that aims to grow, manage, protect and distribute assets in a much planned systematic and integrated manner."

Broadly speaking, wealth management is an investment advisory

discipline that incorporates financial planning, investment portfolio management and a number of aggregated financial services. High Net worth Individuals (HNWIs), small business owners and families who desire the assistance of a credentialed financial advisory specialist call upon wealth managers to coordinate retail banking, estate planning, legal resources, tax professionals and investment management. Wealth managers can be an independent Certified Financial Planner, MBAs, Chartered Strategic Wealth Professional, CFA Charter holders or any credentialed professional money manager who works to enhance the income, growth and tax favored treatment of long-term investors. Wealth management is often referred to as a high-level form of private banking for the especially affluent. One must already have accumulated a significant amount of wealth for wealth management strategies to be effective.

Wealth management services may include:

- Portfolio Management Services
- Multi Manager Investment Solutions
- Portfolio Advisory
- Trading in Equity, Currency, Interest Rate Futures
- Depository Services
- Mutual Funds & IPOs
- Fixed Income Products
- Near Risk-free Arbitrage Products
- Structured Products
- Real Estate Funds
- Private Equity Funds
- Financial Planning
- Pay-roll services to Corporates
- Providing Financial advises etc.

The term wealth management also now a days having very importance. So many Banking companies are engaged in the business of wealth management. The premier insurance industry is now booming because so many bankers are also adopting and playing safe in the business of insurance the term called is Bancassurance. Now a day'swealth Management has very craze in the business world.

WEALTH MANAGEMENT RANGE: - The range of wealth management can be expressed by the following chart.

	STUDENT	START OF CAREER	CAREER ESTABLISHED	RETIREMENT
Liquidity Management (Cash Mgt)	* Deposit based comfort A/C * Credit cards	* Comfort A/c with credit limit * Gold Card	* Premium A/c * Platinum Card	* Premium A/c * Platinum Card
	* Overnight money A/c * Money Market & Fixed Income Fund * Near Money Market Fund * ZINS Plus		* Overnight money A/c * Money Market & Fixed Income Fund * Near Money Market Fund * ZINS Plus * Special Investments	
Wealth Formation	* Top portfolio * Flagship portfolio	* Top portfolio * Flagship portfolio		* Top portfolio * Flagship portfolio
(Savings Plans)	* Titan portfolio	* Titan portfolio * Capital formation benefit funds		* Titan portfolio
Wealth Optimization (Lump sum Investment)		* Absolute Return Portfolio * Holding and Private Equities * Modular Wealth Management * Individual Wealth Management * Premium Portfolio * Titan Portfolio		

1.9 ADVANTAGES AND LIMITATIONS IF WEALTH MANAGEMENT:

The following are the advantages of wealth management concept.

1. **Helpful in Tax Planning:** The wealth management professional always shows the good path to the customers and provide the service of tax planning. How to minimize the tax and save more money?
2. **Helpful in Selection of Investment Strategy**: Another advantage from the customer point of view is with the help of WM Professional the customer can easily know the investment strategy and analyse risk and return.
3. **Helpful in Estate Management**: With the help of wealth management professional we can also manage our estate. Estate

management is a task to provide objective administration of our funds tailored to aim in responsible distribution and protection ofour overall estate.

4. **Helpful in forward looking**: We can say planning, that recognizes as our estate growsand changes occurs we require some team of professionals who help us in future planning.
5. **Helpful for Indian Economy**: Banks which are engaged in business of WM earningrevenues from the foreign countries i.e. outsourcing for economy.

LIMITATIONS

1. **WM Reduces The Scope Of Management**: Though we all know that management hasexistence at all levels of life and society but the term wealth management only related with the higher level means rich people, and is not having any plans and provisions for poor and lower and middle level of society.
2. **Chances of Fraud:** Another demerit or limitation of the WM concept is it is not showing the actual position. The customer doesn't know about the things going on withusing his wealth and there may be chances of forgery and fraud with customers.
3. **Actual Picture VS Inflation**: What is the actual position of market we don't know because everything is done by some WM professionals. So we cannot assume our position in the market that also results in inflation because economy is unknown aboutthe actual state. There may be chance that the customers are in risk but they are showing the false return and vice-versa.

1.10 WEALTH MANAGEMENT: INDIAN CONCERN, CASE EXAMPLES

Sometimes people confuse asset management or financial management with the wealth management. But wealth management has very broad area.

Position of India in Wealth Management:-

In the annual survey done by Cap Gemini, SA and Merrill Lynch it was found that ranks of millionaires grew 6% in the previous year, because the number of richer people grew in India & China where India is competing China. India & China posted the biggest gain in millionaires advancing by 23% & 20% respectively.

When we are watching the world wide increase in number of millionaires the facts collected by Cap Gemini, S.A. and Merrill Lynch survey report. India has 23% growth in the last year. The biggest Asian economy China stands on second position with 20%, west Asia 16%, United States 4% and United Kingdom (UK) 2%.

So we can understand that there are more opportunities in the wealth management business in Asia especially in India.

CASE EXAMPLE 1: ICICI BANK & WEALTH MANAGEMENT:

In India ICICI bank and Axis-Bank are very well known banks in the field of wealth management. ICICI Bank will float subsidiary for the purpose of WM activities in Canada & other market even as ICICI has rolled out ICICI Group Global Private Clients for those with net worth of $ 1 million or more. ICICI GCPC launched their business in Dubai very recently in the month of April-08 and caught 2500 clients. They are going to add another 1000 high network clients this year.

ICICI Bank is using the services of global players like Merrill Lynch, City group, and UBS for catching the clients for Wealth Management business. ICICI Bank and its subsidiaries are engaged in the development of various attractive products (services) for the clients with net worth of $ 1 million.

The eyes of ICICI Group Global Pvt. Clients on the rising number of dollar millionaires at present they are 100,000 in number in few year the number will definitely increase.

India's No.2 lender banker ICICI expects to sustain the 70% growth in its

private wealth management business. ICICI has 150,000 customers with investible surplus of at least Rs. 10 lakhs equity, real estate and private equity is driving the private banking business in India. *India has market of wealth management about $ 600 billion.*

CASE EXAMPLE 2: AXIS BANK & WEALTH MANAGEMENT

One of India's leading private sector bankers Axis bank also combined with Banque Privee Edmond de Rothschild Europe based wealth management expertise institution & is going to make new standard for the NRI's wealth management.

The LCF Rothschild group has based its reputation in the area of wealth management on its big banking experience. Actually the institution is engaged in the task of providing financial advice to the Europe's leading families, Government and various corporations for the last '7' generations.

The Axis Bank 5th largest bank by market capitalization in India provides payroll services to over 12000 corporates across 2.8 million salary accounts. The market capitalization of Axis Bank was 235 million in the last year 2007 is engaged in the business of wealth management, with its international presence in Dubai, Singapore Hong Kong, Shanghai and so on.

Chapter 2: Financial System and Major Reforms – The Indian Example

2.1 Introduction to Indian Financial system

Financial System and its importance.

A financial system functions as an intermediary and facilitates the flow of funds from theareas of surplus to the areas of deficit (Rathod *et al.* 2020). It may be defined as a set of institutions, instruments and markets which fosters savings and channels them to their most efficient use.

The system consists of the following sub-systems:

- Various Financial Institutions
- Financial Instruments
- Markets
- Users of savings (government, public and private sector entities)
- Regulations and laws
- Practices
- Money Managers
- Analysts
- Transactions
- Claim and liabilities
- Intermediaries

Economic activity and growth are greatly facilitated by the existence of a financial system developed in terms of the efficiency of the market in mobilizing savings and allocating them among competing users. Market efficiency would be reflected in widedissemination of information reduction of transaction costs, volume of credit and allocation of capital to the most productive uses which can be ensured by an effectivefinancial system.

Since the liberalization of the economy in 1992-93 and the initiation of reform measures, the financial system is getting market-oriented. Economic reform aimed freeing the financial system from government interference along with improvement offinancial viability and institutional string thinking.

2.2 Functions of Financial System

When the savings flows decline the growth of investment and living standard begins to fall. Similarly when the savings flows increase the growth of investment and living standard begins to improve. Savings of suppliers of funds (mainly households)

- **Liquidity Function**

The value of money is mostly eroded by inflations therefore, the investors always like toinvest in financial instruments like, stock, bond, debentures etc. The financial market helps the investors to liquidate the investments that is conversion of the claims into money.

- **Payment Function**

In India, the cheque system of payment is still practiced, The credit card system is existing in urban area only to pay for consumption expenditure. Through these payments system adopted by the financial system, the cost and time of tram actions arereduced.

- **Risk Function**

Financial System helps investor to protect themselves against life, health and incomerisks. There are life, health accidental, fire, property insurance policies. The financial markets provide immense opportunities for the investor to hedge himself against or reduce the possible risks.

- **Growth Function**

Financial markets within the financial system have made possible the exchange of current income for future income and transformation of savings into investments, so theproduction and income grow.

2.3 Indian Financial Market – Money Market and Capital Market

Indian financial market was highly regimented until the initiation of reforms in 1992-93. After reforms, broad linkage among the money market, government securities market and foreign exchange market has been established. The financial system consists of the capital market and money market.

- **Capital Market:**

Corporate need long term funds with tenure of 365 days or more for the purpose of meeting capital expenditure like acquiring technology, machinery, undertaking capacity expansion, strategic acquisition of other companies etc. Capital Market is important for the economic development of the country.

The capital market provides the fund resources needed by medium and large-scale industries by channeling long-term funds (with more than 1 year maturity). *The capital market consists of primary and secondary markets.*

Primary market deals with the issue of new instruments by the corporate sector such as equity shares, preference shares and debentures. The issue includes the followings:

a) Issue of bonds and shares as a part of disinvestment of government holdings;

b) New issues by non-government companies, bonds and financial institutions.

c) New issue of shares and bonds through private placement markets; etc.

Secondary market is the one which provides liquidly and marketability to those long term instruments earlier created by the primary market. The secondary market consists of 23 stock exchanges including the NSE (National Stock Exchange), the OTCEI (Over-the-Counter Exchange), of India and ISEIL (International Stock Exchange of India Ltd.).

Relationship between Primary and Secondary market?

The primary market creates long-term instruments through which corporate entities borrow from the capital market. But the secondary market is the one which provides liquidity and marketability to these instruments. There is a very close interaction between primary & secondary market. It the secondary market is active and mobile it enables the corporate entities to enter the new issue market depends upon the activities of the primary market because it is only when corporate sectors on business sectors enter into the market and raise funds through the capital market that more financial instruments are available in the secondary market for the purpose of improved activities in this market.

PRIMARY MARKET

Primary market deals with the issues of securities like shares, bonds and debentures from where the corporate entities raise capital to meet the financial requirements of their projects. Public buys securities directly from the issuing company. The important guidelines relating to the primary market concern the followings:

a) Registration of merchant bankers
b) Issue of securities, registering venture capital funds.(SEBI Regulation)
c) Mergers and Amalgamations.

Companies sell their new stocks or bonds for the first time for the first time to the public in this market. It is otherwise called as Initial Public Offering (IPO).

SEBI

A. SEBI – Introduction

Public issues of the companies were controlled by the Capital Issue Control act, 1947. Pricing of the issues were determined by the Controller of Capital Issues. The objective was to present the diversion of investible resources to non-essential projects. The above Act was repealed on May 27, 1992 and CCI was abolished as the practice of government control over capital issues as well as overpricing of issues has lost its relevance in the changed circumstances. The SEBI Act, 1992 was established and as a consequence, the issue of capital and pricing of issue by corporate entities had become free of prior approval. The objective of the SEBI Act, 1992 was to ensure proper

disclosure and investor protection through issuing certain guidelines. The Govt. of India empowered SEBI (The Securities and Exchange Bond of India) as the role authority for regulating the issuance and transfer of shares of listed companies. The regulations issued by the SEBI may be grouped under primary and secondary markets. Mutual Funds are also regulated by SEBI.

B. SEBI – Guidelines (A few)

The guidelines broadly cover the requirements as to the first issue by new companies and existing private closely half companies and also further issues of capital by then companies by way of shares, debentures and bonds. The guideline applies to all the issues of capital.

SEBI has issued guidelines in respect of.the following matters:

- Book building
- Public issues
- Rights issues
- Bonus issues
- Debentures issues
- Takeover of companies
- Underwriting
- Private placement
- Pricing of issues, etc.

Venture capital

- Companies are allowed to issue capital provided the issues are in conformity with the published guidelines relating to disclosure and other matters relating to investors protection
- Subscription list for public issues should be kept open for 3 working days and it should be mentioned in the prospectus. But in the case of rights issue, it should not be kept open for more than 60 days.
- Companies are required to convert their partly paid-up shares into fully paid-up on forfeit the same, before making a public / rights issue.
- No prior approval of SEBI is required by the companies for raising capital through public issues, rights, in the capital market, subject to the fulfillment of certain criteria.
- The quantum of rights or public issue should not exceed the amount specified in the prospectus or letter of offer. No retention of oversubscription is permitted.

- In case of issue at premium, the amount payment on application, allotment and calls by each applicant shall not be less than Rs. 5000, irrespective of the size of the premium.
- In case of public issue at pass, the minimum number of shares for which the application is to be made should be fixed at 200 shares of the face value of Rs.10 each.
- In case of fully convertible debentures (FCD), SEBI restricts the conversion period to 36 months, except the conversion is made optional with call and put options
- Credit rating is required for all kinds of debentures.
- In case of non-convertible dentures, a Debenture Redemption Reserve (DRR) has to be created.

C. Major Players in the Primary Market Merchant

- Bankers
- Mutual Funds
- Financial Institution
- Foreign Institutional Investors (FIIs)
- Individual Investors

D. Function of SEBI

The SEBI was constituted by the govt. in April 1988, with a objective to regulated promote securities market, as a supervision body to ensure the followings:

- Protection of the investors and safeguard their rights and interest
- Steady flow of savings into the market
- Control of horde of malpractices on the part of the companies, stock brokers, merchant bankers, investment consultants involved in new issues.
- Promoting fair dealings by the issuers E Power of SEBI:
- Power to make or amend bye laws of stock Exchange or to direct recognized stock exchanges to make rules;
- Licensing of dealers in securities in certain areas;
- Power to compel a public company to list its share in any stock Exchange;
- Power to regulate depositories, custodians, who debenture trustees and trust deeds, Fib, insider trading, merchant bankers, mutual funds, portfolio managers, stock brokers etc.

- Power to appoint any person to make inquiries into the affairs of the Stock Exchange;
- Power to call for direct periodical enquiries in returns from Stock exchanges, subject to the fulfillment of certain criteria;
- Powers to supersede the governing body on to suspend business of any recognized stock exchange;
- Powers to ask every stock exchange to furnish a copy of the annual report containing particulars that may be
- Power to call upon the stock exchange or any member of the exchange to furnish relevant information;
- F. Types of Issue of shares & debenture
- Public issue – Raising of funds directly from the public
- Rights issue – Raising additional funds from existing shareholders by offering on prorate basis through a 'letter of offer'.
- Bonus issue – issuing bonus shares in lieu of cash div. to existing shareholders for distributing profits, in the ratio of existing shares held
- Private placement – sale of shares debentures directly by a public or PVT. Limited Co., to a limited no. of sophisticated investor's life UTI, LIC, UIC, SFC. The merchant bookers, credit rating agencies, financial advisors are the intermediates

SECONDARY MARKET

The secondary market is that segment of capital market where the outstanding securities are traded from the invertor's point of view, the secondary market imparts liquidity to the long-term Securities held by them by providing an auction market for these securities. The secondary market operates through the medium of stock exchanges which regulate the trading activities in this market and ensure a measure of safety and fair dealing to the investors. The salient and striking feature of the secondary market is that the investors trade among themselves. It does not include issuing companies and investors trade previously-traded securities.

A Type of Secondary Market:

a) Auction Market – All individuals and institutions assemble to trade securities at one area and announce the prices at which they are willing to purchase or buy. The NYSE is the best example ofan Auction a Market which is the largest stock exchange in the word.

Brought-out deals – equity shares are offered to as pourer / merchant

banker who, in turn buys and offloads the shares (generally through the mechanism of OTCEI on a recognized stock exchange / to the public at a later date on disinvests in favour of the public at an appropriate time.

b) Dealer Market –Individuals on companies will specialize in specific securities and buy or sell according to the demand of the market. Over-the-counter markets as a grouped under dealer markets as the demand and supply for particular stocks is not enough to meet the requirements of different investors. Most bonds are traded in dealer market and NASDAQ is an example for dealer market.

B Effect of Liberalization of the financial system

In the area of secondary markets, measures to control volatility and transparency in dealings have been taken by adoption of the followings:

- Dematerializing the shares by setting up depositories and trading in derivative securities
- On line trading which is screen- based
- Rolling and uniform settlement
- Initiating regulatory measures to protect integrity of markets

C Major Players in the Secondary Market

- The stock brokers who are members of the stock exchanges
- Individual Investors
- Mutual Funds
- Financial Institutions
- Foreign Institutional Investors (FII)

D Stock Exchanges

The first Indian Stock exchange established at Mumbai in 1875. The stock exchange is an auction market in shares and other securities. A bull is the buyer and a bear is the seller in the market. Stock exchanges regulate the trading activities and ensure a measure of safety and fair dealing to the investors.

Trading System: Earlier Trading on all stock exchanges, was being carried out by "public outing 'in the trading ring which was an outdated and in efficient system, resulted lack of transparency in trade. The first exchange to introduce screen bused trading in India was the over the counter Exchange of India (OTCE 1). After the commence of the activities of National Stock Exchange (NSE), the screen based

trading received a big boost since trading terminals were set up all over the country for getting nationwide access to investors and terminals were networked through satellite links. The trading system in new fully automated enabling market participants to login orders, execute deals. The competition from NSE forced the regional Stock exchanges including BSE to switch over to serene bused trading.

E **Types of Trading**

- Order driven NSE Trading system is order
- Quote driven – OTCEI system is quote driven

Mixed BSE online trading (BOLT) is a mixture of both quotes system and order driven system. All orders are captured and matched with each other to execute the transaction under order driven system. On the other hand, dealer gives two way quotes and the order logged in its matched against the best quote given by the market maker.

F **Depositors:**

Earlier there was problem in physical storage and transfer as the securities were held in the form of certificates. The transaction costs were also higher due to physical movement of paper and the incidence of stamp duty. NSDL (National Securities Depository Limited) in India holds the securities in electronic form on behalf of the investor. Further it also handles collection of dividends, credit for bonus, exercising of warrant, etc., on behalf of the investor.

Money Markets

Money Market deals with short-term fund requirement (Adrian and Griffoli, 2019). Thefunds are available for the period of a single day to one year. The instruments in the money market use of short-term nature and highly liquid. The market where short timefinance is borrowed and bent is called money market. Money market performs the following functions:

i) It provides on equilibrating mechanism to balance demand for and supply ofshort-term funds to meet daily expenses like purchase, wage payment etc.

ii) It provides a focal point for the RBI for its invention in the markets for the purpose of influencing liquidity and interest rates in the economy.

iii) It provides access to providers and users of short-term funds to fulfill their borrowing and investment requirements.

A Major Constituent of Money Market:

RBI: (Reserve Bank of India) – Its function in Money Market – The most important constituent of money market is RBI who ensures that liquidity and short-term interest rates are maintained at levels required for achieving objectives of monitory policy. The development and regulation of money markets in the Indian Financial system is an important function of RBI.

RBI introduced new instruments reducing dependence of participants on uncollateralized exposure facile rate price discovery in the short-end and upgrades the payment system infrastructure. For the past few years, the RBI has been trying to develop a proper short-term rupee yield curve with deep liquidity in the money markets.

RBI's strategically efforts broadly aimed at the following development of Indian Money Market:

- Development of the payment system infrastructure with the introduction of the Negotiated Dealing System (NDS) and formation of the clearing corporation of India Ltd. (CCIL) and the implement tic of Real time Gross Settlement (RTGJ) system in March 2004
- Development of call / notice money market with a view to augmenting short-term liquidity
- Stability in the short-term interest rates within a certain range through Market Stabilization scheme (MSS) Launched in April 2004 and Open Market Operations (OMO)
- Transferring the call / notice markets into a pure inter-bank market with participation of banks and primary dealers.
- Measures to make various other money market instruments e.g. CDs, CPs freely accessible to none bank participants
- Introducing repos operations foreign exchange purchase, enhancing govt. securities refinancing to stabilize call rate.

B Money Market Instrument

Money-market instrument is a document issued by the debtor or creditor of short-term nature (less than 1 year) the claim on which is eerily transferable.

i) Govt. and quasi – government securities.

- Treasury Bills (T-Bills)
- Government Dated Securities / Gilt –Edges Securities

ii) Banking Sector securities

- Call and Notice Money Market
- Certificate of Deposit (CDs)
- Participation Certificates

iii) Private Sector Securities

- Bills of Exchange (commercial) and trade bills / factorization bills)
- IMMMF
- Corporate Bonds / Debentures
- Commercial Paper (CPs)
- Inter-Corporate Deposits) Investments.

C **Money Market Players**

Players	**Role**
• RBI	Regulatory / T-Bills
• Govt.	Borrower / Issuer
• Banks	Borrowers / lenders (Commercial & co- operative)
• Dealers	Intermediaries
• Insurance Companies	Lenders
• Corporate	Issuers / lenders
• FIIs	Investors
• Mutual funds	Borrowers / Issuers
• Discount and Acceptance Houses	Market Makers
• Other small players	Investor / Borrows

Central govt. is a borrower in the money market through the issue of T-bills. The T-Bills are issued through the RBI. The PSV are only borrowers in the money market. The can issue commenced paper in order to obtain its working capital finance. Being cash surplus entities, both general and life insurance companies are usual leaders in the money market, though they invest more in capital market instruments. Mutual Funds offer verities of schemes for the different objectives of the public e.g., MMMF or Liquid Schemes – Schedule Commercial

Banks are very big borrowers and lenders in the money market. They borrow and lend in call money market, short and notice market, repo and reverse repo market corporate borrow by issuing commercial papers.

2.4 Financial Institutions

The financial institutions are divided in two categories. The first type refers to the regulatory institutions and the second type refers to the intermediaries.

The regulators are assigned with the job of governing all the divisions of the Indian financial system. These regulatory institutions are responsible for maintaining the transparency and the national interest in the operations of the institutions under their supervision.

The regulatory bodies of the **financial institutions in India** are as follows:

Reserve Bank of India (RBI)

Securities and Exchange Board of India (SEBI)

Central Board of Direct Taxes (CBDT)

Central Board of Excise & Customs

Apart from the Regulatory bodies, there are the Intermediaries that include the banking and non-banking financial institutions. Some of the specialized **financial institutions in India** are as follows:

- Unit Trust of India (UTI)
- Securities Trading Corporation of India Ltd. (STCI)
- Industrial Development Bank of India (IDBI)
- Industrial Reconstruction Bank of India (IRBI), now (Industrial Investment Bank of India)
- Export - Import Bank of India (EXIM Bank)
- Small Industries Development Bank of India (SIDBI)
- National Bank for Agriculture and Rural Development (NABARD)
- Life Insurance Corporation of India (LIC)
- General Insurance Corporation of India (GIC)
- Shipping Credit and Investment Company of India Ltd. (SCICI)
- Housing and Urban Development Corporation Ltd. (HUDCO)
- National Housing Bank (NHB)

The banking institutions of India play a major role in the economy of the country. The banking institutions are the providers of depository and transaction services. These activities are the major sources of creating money. The banking institutions are the major sources of providing loans and other credit facilities to the clients. Apart from the banking financial institutions, there are a number of specialized financial institutions in India that have been incorporated for a definite purpose. These institutions include the insurance companies, the housing finance companies, mutual funds, merchant banks, credit reporting and debt collection companies and many more. Apart from these, there are several other financial institutions that are existing in the country. These are the stock brokers and sub-brokers, portfolio managers, investment advisors, underwriters, foreign institutional investors and many more.

2.5 Commercial Banks in India

Commercial Banks in India are broadly categorized into Scheduled Commercial Banks and Unscheduled Commercial Banks. The Scheduled Commercial Banks have been listed under the Second Schedule of the Reserve Bank of India Act, 1934. The selection measure for listing a bank under the Second Schedule was provided in section 42 (60 of the Reserve Bank of India Act, 1934.

Activities of Commercial Banks:

The modern Commercial Banks in India cater to the financial needs of different sectors. The main functions of the commercial banks comprise:

- Transfer of funds
- Acceptance of deposits
- Offering those deposits as loans for the establishment of industries
- Purchase of houses, equipment, capital investment purposes etc.
- The banks are allowed to act as trustees. On account of the knowledge of the financial market of India the financial companies are attracted towards them to act as trustees to take the responsibility of the security for the financial instrument like a debenture.
- The Indian Government presently hires the commercial banks for various purposes like tax collection and refunds, payment of pensions etc.

Some Lists of Commercial Banks in India

Public Sector Banks

These banks are the nationalized banks undertaken by the Government of India in a way or the other. Many people can relate to these as state-run banks. Nationalized banks account for over 75% of the overall business transactions that happen in the country.

Out of all these public sector banks, we all know the State Bank of India, which is now amongst the top 50 banks in the world.

As per the recent reports, after the amalgamation of smaller banks with larger banks, there are 12 public sector banks in India as of now. The names of these banks are:

State Bank of India	**Punjab National Bank**	**Bank of Baroda**	**Bank of India**
Bank of Maharashtra	**Union Bank of India**	**Canara Bank**	**Central Bank of India**
Indian Bank	**Indian Overseas Bank**	**Punjab & Sindh Bank**	**UCO Bank**

Private Sector Banks

Private sector banks are the ones that work on similar lines as the nationalized banks do, the only difference is that the majority stakes in these banks are privately owned, as in the major stakes in the equity are owned by private stakeholders or business houses.

These banks majorly work on the lines of profit-making by keeping deposits providing loans and other products related to financial activities.

The major private sector banks in the country are:

HDFC Bank	**Kotak Mahindra Bank**	**ICICI Bank**
IndusInd Bank	**IDFC Bank**	**YES Bank**
South Indian Bank	**Bandhan Bank**	**Laxmi Vilas Bank**

The banks mentioned above might account for a lesser share in the overall banking operations in the country but they excel in terms of customer engagements and overall standards of service.

Foreign Banks

A foreign bank is a bank having its head-quarter outside the country but run its offices as a private entity at any other location outside the country. The bank may have as many branches and offices they find suitable, they are under an obligation to operate under the regulations provided by the central bank of the country as well as the rule prescribed by the parent organization located outside India.

Some major foreign bank that operates in India are as given below:

HSBC Bank	**CitiBank**	**Standard Chartered Bank**
American Express Banking Corporation	**DBS Bank India Limited**	**FirstRand Bank**
Credit Suisse	**JP Morgan Chase Bank**	**SBer Bank**

Regional Rural Banks

These banks also fall under the category of scheduled commercial banks of small scale, the main objective behind the formation of such banks is to provide credit support to economically weaker sections of the society like labourers, farmers, rural traders and small business owners. Most of these banks are regional as the name suggests, means these banks operate in particular regions and might have branches in the metropolitans as well.

These rural banks work on specific lines and serve major functions like providing financial credit support to rural and semi-urban areas, provide support for government schemes by processing payments for the national pension scheme and MGNREGA beneficiaries. These banks are considered no less as compared to the nationalized banks, as they also provide card and locker facilities to their customers.

Payments bank

Payment bank is a relatively Indian new model of banks. Conceptualized and regulated by the Reserve Bank of India (RBI), payments banks can accept a restricted deposit up to Rs.1 lakh per customer. Payments Banks can offer services like debit/credit cards, net- banking and mobile-banking services.

2.6 Financial Sector Reforms in India

Financial sector reforms are at the center stage of the economic liberalization that was initiated in India in mid-1991. This is partly because the economic reform process itself took place amidst ***two serious crises*** involving the financial sector:

The balance of payments crisis that threatened the international credibility of the country and pushed it to the brink of default; and

The grave threat of insolvency confronting the banking system which had for years concealed its problems with the help of defective accounting policies. Moreover***, many of the deeper rooted problems of the Indian economy*** in the early nineties were also strongly related to the financial sector:

The problem of financial repression in the sense of McKinnon-Shaw (McKinnon, 1973; Shaw, 1973) induced by administered interest rates pegged at unrealistically low levels; large scale pre-emption of resources from the banking system by the government to finance its fiscal deficit;

Excessive structural and micro regulation that inhibited financial innovation and increased transaction costs;

Relatively inadequate level of prudential regulation in the financial sector; Poorly developed debt and money markets; and

Outdated (often primitive) technological and institutional structures that made the capital markets and the rest of the financial system highly inefficient.

The following sections review the progress of financial sectors in some key areas. Exchange Control and Convertibility

One of the early successes of the reforms was the speed with which exceptional financing was mobilized from multilateral and bilateral sources to avert what at one stage looked like a imminent default on the country's external obligations.

Subsequently, devaluation, trade reforms and the opening up of the economy to capital inflows helped to strengthen the balance of payments position.

<u>The significant reforms in this area were</u>:

Exchange controls on current account transactions were progressively relaxed culminating in current account convertibility.

Foreign Institutional Investors were allowed to invest in Indian equities subject to restrictions on maximum holdings in individual companies. Restrictions remain on investment in debt, but these too have been progressively relaxed.

Indian companies were allowed to raise equity in international markets subject to various restrictions.

Indian companies were allowed to borrow in international markets subject to a minimum maturity, a ceiling on the maximum interest rate, and annual caps on aggregate external commercial borrowings by all entities put together.

Indian mutual funds were allowed to invest a small portion of their assets abroad.

Indian companies were given access to long dated forward contracts and to cross currency options.

Banking and credit policy

At the beginning of the reform process, the banking system probably had a negative net worth when all financial assets and liabilities were restated at fair market values (Varma 1992). This unhappy state of affairs had been brought about partly by imprudent lending and partly by adverse interest rate movements. At the peak of this crisis, the balance sheets of the banks, however, painted a very different rosy picture. Accounting policies not only allowed the banks to avoid making provisions for bad loans, but also permitted them to recognize as income the overdue interest on these loans. The severity of the problem was thus hidden from the general public. The threat of insolvency that loomed large in the early 1990s was, by and large, corrected by the government extending financial support of over Rs 100 billion to the public sector banks.

The banks have also used a large part of their operating profits in recent years to make provisions for non-performing assets (NPAs). Capital adequacy has been further shored up by revaluation of real estate and by raising money from the capital markets in the form of equity and subordinated debt. With the possible exception of two or three weak banks, the public sector banks have now put the threat of insolvency behind them.

The major reforms relating to the banking system were:

Capital base of the banks were strengthened by recapitalization, public equity

issues and subordinated debt.

Prudential norms were introduced and progressively tightened for income recognition, classification of assets, provisioning of bad debts, marking to market of investments.

Pre-emption of bank resources by the government was reduced sharply.

New private sector banks were licensed and branch licensing restrictions were relaxed. At the same time, several operational reforms were introduced in the realm of credit policy:

Detailed regulations relating to Maximum Permissible Bank Finance were abolished Consortium regulations were relaxed substantially

Credit delivery was shifted away from cash credit to loan method.

The government supports to the banking system of Rs 100 billion amounts to only about 1.5% of GDP. By comparison, governments in developed countries like the United States have expended 3-4% of GDP to pull their banking systems out of crisis (International Monetary Fund, 1993) and governments in developing countries like Chile and Philippines have expended far more. However, it would be incorrect to jump to the conclusion that the banking system has been nursed back to health painlessly and at low cost. The working results of the banks for 1995-96 which showed a marked deterioration in the profitability of the banking system was a stark reminder that banks still have to make large provisions to clean up their balance sheets completely. Though bank profitability improved substantially in 1996-97, it will be several more years before the unhealthy legacy of the past (when directed credit forced banks to lend to uncreditworthy borrowers) is wiped out completely by tighter provisioning. *It is pertinent to note that independent estimates of the percentage of bank loans which could be problematic, are far higher than the reported figures on non-performing assets worked out on the basis of the central bank's accounting standards*. **For example**, a report estimates potential (worst case) problem loans in the Indian banking sector at 35-60% of total bank credit pessimism, but the lower end of the range is perhaps a realistic assessment of the potential problem loans in the Indian banking system. The even more daunting question is whether the banks' lending practices have improved sufficiently to ensure that fresh lending (in the deregulated era) does not generate excessive nonperforming assets (NPAs).

That should be the true test of the success of the banking reforms. There are really two questions here. First, whether the banks now possess sufficient managerial autonomy to resist the kind of political pressure that led to excessive NPAs in the past through lending to borrowers known to be poor credit risks. Second, whether the banks' ability to appraise credit risk and take prompt corrective action in the case of problem accounts has improved sufficiently. It is difficult to give an affirmative answer to either of these questions

Turning to financial institutions, economic reforms deprived them of their access to cheap funding via the statutory pre-emptions from the banking system. They have been forced to raise resources at market rates of interest. Concomitantly, the subsidized rates at which they used to lend to industry have given to market driven rates that reflect the institutions' cost of funds as well as an appropriate credit spread. In the process, institutions have been exposed to competition from the banks who are able to mobilize deposits at lower cost because of their large retail branch network. Responding to these changes, financial institutions have attempted to restructure their businesses and move towards the universal banking model prevalent in continental Europe. It is too early to judge the success of these attempts.

Interest rate deregulation and financial repression

Perhaps the single most important element of the financial sector reforms has been the deregulation of interest rates.

Interest rates were freed on corporate bonds, most bank lending, and bank deposits above one year maturity.

Introduction of auctions coupled with reduced pre-emption led to more market determined interest rates for government securities.

Administered interest rates are now confined mainly to short term bank deposits, priority sector lending, and deposits of non-banking financial companies. For all practical purposes, financial repression is a thing of the past. Even on short term retail bank deposits which are still regulated, the ceiling rate is well above the historic average rate of inflation. Moreover, quite often the ceiling has not been a binding constraint in the sense that actual interest rates have often been below the regulatory ceiling.

Similarly, the prices of most other financial assets are also now determined by the more or less free play of market forces. Consequently, financial markets are increasingly able to perform the important function of allocating resources efficiently to the most productive sectors of the economy. This must count as one of the most enduring and decisive successes of the financial reforms.

Capital Markets

The major reform in the capital market was the abolition of capital issues control and the introduction of free pricing of equity issues in 1992. Simultaneously the Securities and Exchange Board of India (SEBI) was set up as the apex regulator of the Indian capital markets. In the last five years, SEBI has framed regulations on a number of matters relating to capital markets. Some of the measures taken in the primary market include: *Entry norms for capital issues were tightened Disclosure requirements were improved*

Regulations were framed and code of conduct laid down for merchant bankers, underwriters, mutual funds, bankers to the issue and other intermediaries. In relation to the secondary market too, several changes were introduced:

Capital adequacy and prudential regulations were introduced for brokers, sub-brokers and other intermediaries

Dematerialization of scrips was initiated with the creation of a legislative framework and the setting up of the first depository

On-line trading was introduced at all stock exchanges. Margining system was rigorously enforced.

Settlement period was reduced to one week; carry forward trading was banned and then reintroduced in restricted form; and tentative moves were made towards a rolling settlement system.

In the area of corporate governance:

Regulations were framed for insider trading Regulatory framework for take-overs was revamped

SEBI has been going through a protracted learning phase since its inception. The apparent urgency of immediate short term problems in the capital market has often seemed to distract SEBI from the more critical task of formulating and implementing a strategic vision for the development and regulation of the capital markets. In quantitative terms, the growth of the Indian capital

markets since the advent of reforms has been very impressive. The market capitalization of the Bombay Stock Exchange (which represents about 90% of the total market capitalization of the country) has quadrupled from Rs 1.1 trillion at the end of 1990-91 to Rs 4.3 trillion at the end of 1996-97 .As a percentage of GDP, market capitalization has been more erratic, but on the whole this ratio has also been rising. Total trading volume at the Bombay Stock Exchange and the National Stock Exchange (which together account for well over half of the total stock market trading in the country) has risen more than ten-fold from Rs 0.4 trillion in 1990-91 to Rs 4.1 trillion in 1996-97 .The stock market index has shown a significant increase during the period despite several ups and downs, but the increase is much less impressive in dollar terms because of the substantial depreciation of the Indian rupee It may also be seen from the chart that after reached its peak in 1994-95, the stock market index has been languishing at lower levels apart from a brief burst of euphoria that followed an investor friendly budget in 1997. For the primary equity

market too, 1994-95 was the best year with total equity issues (public, rights and private placement) of Rs 355 billion.

Thereafter, the primary market collapsed rapidly. Equity issues in 1996-97 fell to one-third of 1994-95 levels and the decline appears to be continuing in 1997-98 as well.

More importantly, most of the equity issues in recent months have been by the public sector and by banks. Equity issues by private manufacturing companies are very few.

Structural deregulation

In its midterm review of the reform process (Ministry of Finance, 1993a), the government stated: "Our overall strategy for broader financial sector reform is to make a wide choice of instruments accessible to the public and to producers This requires a regulatory framework which gives reasonable protection to investors without smothering the market with regulations It requires the breaking up of monopolies and promotion of competition in the provision of services to the public It requires the development of new markets such as security markets for public debt instruments and options, futures and forward markets for financial instruments and commodities." Unfortunately, this is one area where actual progress has lagged far behind stated intent. It

is true that some steps have been taken to increase competition between financial intermediaries both within and across categories. Banks and financial institutions have been allowed to enter each other's territories. Fields like mutual funds, leasing, merchant banking have been thrown open to the banks and their subsidiaries. The private sector has been allowed into fields like banking and mutual funds.

Nevertheless, major structural barriers remain:

All major banks and financial institutions continue to be government owned and government managed.

The entire mechanism of directed credit and selective credit controls built up over the years is still in place, and is being strengthened in certain areas.

Financial intermediaries have often been compelled to set up separate arms' length subsidiaries while entering various segments of the financial services industry. This has prevented them from benefiting from economies of scope.

Competition has also been hindered by the undiminished power of cartels like the Indian Banks Association (IBA). In fact, these cartels have been accorded the tacit support of the regulators. Similarly, the Securities and Exchange Board of India (SEBI) has been reluctant to permit aggressive competition among the different stock exchanges. These halfhearted attempts at promoting competition raise fears about the extent to which our regulators have succumbed to regulatory capture by the organizations that they are supposed to regulate.

Insurance continues to be a public sector monopoly. As a result, financial products which combine the features of life insurance with those of equity related instruments have not developed. The range of insurance products (life and non-life) available in the country is also limited.

The regulators have not yet moved to create a full-fledged options and futures market. On the technological front, progress has been slow in important areas. The payment system continues to be primitive despite the central bank's attempts to create an Electronic Fund Transfer System (EFTS). Archaic elements of the telecom regulations have prevented the financial services industry from benefiting from the confluence of Communications and computing technologies.

Monetary policy and debt markets

In the early nineties, the Indian debt market was best described as a dead market. Financial repression and over-regulation were responsible for this situation (Barua et al.,1994). *Reforms have eliminated financial repression and created the pre-conditions for the development of an active debt market:*

The government reduced its pre-emption of bank funds and moved to market determined interest rates on its borrowings. Simultaneously, substantial deregulation ofinterest rates took place as described earlier.

Automatic monetization of the government's deficit by the central bank was limited andthen eliminated by abolishing the system of ad hoc treasury bills.

Several operational measures were also taken to develop the debt market, especiallythe market for government securities.

Withdrawal of tax deduction at source on interest from government securities andprovision of tax benefits to individuals investing in them.

Introduction of indexed bonds where the principal repayment would be indexed to theinflation rate.

Setting up of a system of primary dealers and satellite dealers for trading in governmentsecurities:

Permission to banks to retail government securities Opening up of the Indian debt market including government securities to Foreign Institutional Investors. Meanwhile a spate of well subscribed retail debt issues in 1996 and 1997 shattered the myth that the Indian retail investor has no appetite for debt. While only Rs 6 billion was raised through public debt issues in 1994 and Rs 11 billion in 1995, the amounts raised in 1996 was Rs 56 billion. Debt accounted for more than half of the total amount raised through public issues in 1996 compared to less than 10% twoyears earlier. In 1997, public issues of debt fell to Rs 29 billion, but with the collapse of the primary market for equity, the share of debt in all public issues increased to 57%.

Meanwhile, private placement of debt (which is a much bigger market than public issues) has grown very rapidly. Private placement of debt jumped from Rs 100 billion in1995-96 to Rs 181 billion in 1996-97; in the first half of 1997-98, it grew again by over 50% with Rs 136 billion mobilized in these six months alone. **India is perhaps closer to the development of a vibrant debt**

market than ever before, but several problems remain:

The central bank has repeatedly demonstrated its willingness to resort to micro-regulation and use market distorting instruments of monetary and exchange rate policyrather than open market operations and interventions For example, as late as 1996, the central bank was relying on moral suasion and direct subscriptions to government securities to complete the government's borrowing programme. The RBI's response tothe pressure on the rupee in late 1997 and early 1998 also reveal an undiminished penchant for micro-regulation.

Some of the vibrancy of debt markets in 1996 and 1997 was due to the depressed conditions in the equity markets. Little progress has been made on the major legalreforms needed in areas like bankruptcy, foreclosure laws, and stamp duties.

Corporate Law

Two successive governments have introduced legislation for comprehensive overhaul ofthe corporate law in India, but neither of them lasted long enough to get the proposals enacted into law. Some administrative simplifications have been carried out in areas like managerial remuneration and inter-corporate investments, but the major reforms in corporate governance and disclosure await a new government.

Impact on Corporate Sector Corporate governance

In the mid-nineties, corporate governance became an important area of concern for regulators, industrialists and investors alike. Indian industry considered the matter important enough for them to propose model corporate governance code (Bajaj, 1997). However, the major pressure for better corporate governance came from the capital markets. Capital markets have always had the potential to exercise discipline over promoters and management alike, but it was the structural changes created by economic reform that effectively unleashed this power. Minority investors can bring the discipline of capital markets to bear on companies by voting with their wallets. They canvote with their wallets in the primary market by refusing to subscribe to any fresh issues by the company. They can also sell their shares in the secondary market thereby depressing the share price. **Financial sector reforms set in motion several key forces that made these forces far more potent than in the past:**

Deregulation: Economic reforms have not only increased growth prospects, but they have also made markets more competitive. This means that in order to survive companies will need to invest continuously on a large scale. The most powerful impact of voting with the wallet is on companies with large growth opportunities that have a constant need to approach the capital market for additional funds.

Disintermediation: Meanwhile, financial sector reforms have made it imperative for firms to rely on capital markets to a greater degree for their needs of additional capital. As long as firms relied on directed credit, what mattered was the ability to manipulate bureaucratic and political processes; the capital markets, however, demand performance.

Globalization: Globalization of our financial markets has exposed issuers, investors and intermediaries to the higher standards of disclosure and corporate governance that prevail in more developed capital markets.

Institutionalization: Simultaneously, the increasing institutionalization of the capital markets has tremendously enhanced the disciplining power of the market. Large institutions (both domestic and foreign), in a sense, act as the gatekeepers to the capital market. When they vote with their wallets and their pens, they have an even more profound effect on the ability of the companies to tap the capital markets. Indian companies that opened their doors to foreign investors have seen this power of the minority shareholder in very stark terms. International investors can perhaps be fooled for the first time about as easily as any other intelligent investor, but the next time around, the company finds that its ability to tap the international markets with an offering of Global Depository Receipts (GDRs) or other instrument has practically vanished. In the mid-90s, company after company in India has woken up in this manner to the power that minority shareholders enjoy when they also double up as gatekeepers to the capital market.

Tax reforms: Tax reforms coupled with deregulation and competition have tilted the balance away from black money transactions. It is not often realized that when a company makes profits in black money, it is cheating not only the government, but also the minority shareholders. Black money profits do not enter the books of account of the company at all, but usually go into the pockets of the promoters. The past few years have witnessed a silent revolution in Indian corporate governance where managements have woken

up to the disciplining power of capital markets. In response to this power, the more progressive companies are voluntarily accepting tougher accounting standards and more stringent disclosure norms than are mandated by law. They are also adopting more healthy governance practices. Nevertheless, it is still true that the state of corporate governance in India remains pathetic. It is this more than anything else that lies behind the prolonged slump in the primary market today.

Risk management

In the days when interest rate were fixed by the government and remained stable for long periods of time, interest rate risk was a relatively minor problem. The deregulation of interest rates as a part of financial sector reform has changed all that and made interest rates highly volatile. For example, the rate of interest on short term commercial paper was about 12-13% at the end of 1994, rose to about 17% by the end of 1995, peaked at about 20% in April 1996, dropped back to about 13% by the end of 1996, continued to fall through 1997 reaching about 8% in November 1997 before climbing back to double digits by the end of the year. Companies which borrow short term to fund their new projects may face difficulties if interest rates go up sharply. It may turn out that at the higher cost of finance, the project is not viable at all. Worse, companies may find it difficult to refinance their borrowings at any price in times when money is tight. Many companies which borrowed in the Inter Corporate Deposit (ICD) market in 1994 to finance acquisitions and expansions faced this difficulty in 1995 and 1996 when the ICD market dried up. Large scale defaults (euphemistically described as rollovers) took place during this time. On the other hand, companies which issue long term bonds may start regretting the decision when they find interest rates coming down. In the last few years, companies have tried to protect themselves from this risk by introducing a call provision in their bonds by which they can redeem the bonds prematurely under certain conditions. Of course, such call options make the bonds more expensive (in terms of a higher coupon rate) or more difficult to sell.

Companies have also tried to make the bonds more attractive to investors by giving them a put option to seek premature redemption of the bonds. This may make the bond easier to sell, but it exposes the issuing company to interest rate risk. If interest rates rise, many investors will exercise the put

option, and the company will have to borrow from elsewhere at high cost to meet the redemption requirements. Put and call options do make a big difference to the pricing of some of these bonds **(Varma 1996a)** making the design of these instruments quite complex.

In the next few years, many of these companies would also be faced with the decision ofthe optimal exercise of the call options on the callable bonds that they have issued in recent years. In the post reform era, corporates have also been faced with high volatilityin foreign exchange rates. The rupee-dollar rate has on several occasions moved up or down by several percentage points in a single day as compared to the gradual, predictable changes of the eighties. Indian companies have found to their dismay that foreign currency borrowings which looked very cheap because of a low coupon rate of interest can suddenly become very expensive if the rupee depreciates against the currency in which the bond is denominated. Foreign currency convertible bonds issued by many Indian companies in 1993 and 1994 illustrate the devastating effects of volatility in interest rates, foreign exchange rates and stock prices. At the time of issue, the bonds carried a low coupon rate (often only 2 or 3% in US dollars), and were convertible into stock at prices which were at a modest premium (5 to 10%) over the then prevailing stock price. Issuers thought of them as deferred equity and found the instruments very attractive because they allowed equity to be priced at a premium to the market prices and offered the benefit of a low coupon till the conversion date. As it turned out, stock prices fell during 1995 and 1996, and investors chose not to convert the bonds. Issuers then realized that they would have to redeem the bonds in dollars, and that the depreciation of the rupee has increased their effective borrowing cost substantially. To make worse, investors exercised put options wherever they had them, and companies had to raise money in the domestic markets to pay off the foreign bondholders. In some cases, this happened at a time when Indian monetary policy was extremely tight and interest rates were very high. In this case, volatility in three different markets combined to make things difficult for the companies concerned.

Capital structure

At the beginning of the reform process, the Indian corporate sector found itself significantly over-levered. This was because of several reasons:

Subsidized institutional finance was so attractive that it made sense for

companies to avail of as much of it as they could get away with. This usually meant the maximum debt-equity ratios laid down by the government for various industries.

In a protected economy, operating (business) risks were lower and companies could therefore afford to take more risks on the financing side.

Most of the debt was institutional and could usually be rescheduled at little cost.

The reforms changed all of this. *The corporate sector was exposed to international competition and subsidized finance gave way to a regime of high real interest rates. One of the first tasks for the Indian companies was substantial deleveraging. Fortunately, a booming equity market and the appetite of foreign institutional investors for Indian paper helped companies to accomplish this to a great extent in 1993 and 1994. The downturn in the stock market that has followed since then has stopped this process from going any further and has probably left many companies still excessively levered.*

According to the figures compiled by the Centre for Monitoring the Indian Economy, the average debt-equity ratio of private sector manufacturing companies in India fell from

1.72 in 1990-91 to 1.05 in 1996-97, and more than half of this reduction took place in one single year - 1994-95. Over the longer term, economic reforms have also been reshaping the control dimension of the leverage decision. ***Corporate control is an important consideration in the choice of debt or equity in the capital structure. An equity issue clearly involves loss of control, and as discussed under the section on corporate governance, reforms have increased the power of the minority shareholders. Equally, a debt issue also can have control implications in the form of debt covenants, rating discipline and cash flow discipline*****. Reforms have impacted these too, but more slowly:**

Bond covenants: Internationally bond covenants are quite restrictive especially for companies whose credit worthiness is less than top class. These covenants may restrict the investment and dividend policies of the company, may mandate sinking funds, may include cross-default clauses and may contain me-too clauses which restrict the future borrowing ability of the company. Bond covenants have typically been quite lax in India.

Moreover bond (and debenture) trustees have been generally very lax in the performance of their duties.

Rating discipline: The most dramatic example of the power of rating discipline was demonstrated in 1996 when in the face of a constitutional deadlock between the US President and the Congress over the approval of the budget, the rating agencies threatened to downgrade US government securities to default grade. It was shown that even the most powerful borrower in the world can be subjected to rating discipline; it is believed that the raters' threat played a role in the speedy resolution of the constitutional deadlock. Rating discipline is gradually asserting itself in India. The last couple of years have seen a series of rating downgrades as corporate balance sheets deteriorated in an environment of tight money. Rating agencies are becoming more stringent in their rating standards and are paying greater attention to key financial parameters like the interest coverage ratio **(Raghunathan and Varma, 1997).** Already some companies are beginning to informally sound out their rating agencies before taking major financial decisions to ensure that their rating is not adversely affected. This is standard practice in many other countries of the world where credit rating is well developed.

Cash flow discipline: Equity has no fixed service costs and year to year fluctuations in Income are not very serious so long as overall enough is earned to provide a decent return to the shareholders. Debt on the other hand has a fixed repayment schedule and interest

Obligation. A company that is unable to generate enough cash flow to meet this debt service requirement faces insolvency or painful restructuring of liabilities. Again, Indian companies have not experienced much of this discipline in the past because much of their debt was owed to banks and institutions who have historically been willing to reschedule loans quite generously. Institutions may be less willing to do so in future.

More importantly, rescheduling is not an easy option when the debt is raised in the market from the public. Bonds are typically rescheduled only as part of a bankruptcy proceeding or a BIFR restructuring. As the next phase of economic reforms targets bankruptcy related laws, cash flow discipline can be expected to become far more stringent.

2.7 IRDA

The **Insurance Regulatory and Development Authority** (IRDA) is a national agency of the Government of India, based in Hyderabad. It was formed by an act of Indian Parliament known as IRDA Act 1999, which was amended in 2002 to incorporate some emerging requirements. Mission of IRDA as stated in the act is "to protect the interests of the policyholders, to regulate, promote and ensure orderly growth of the insurance industry and for matters connected therewith or incidental thereto."

In 2010, the Government of India ruled that the Unit Linked Insurance Plans (ULIPs) will be governed by IRDA, and not the market regulator Securities and Exchange Board of India.

The law of India has following expectations from IRDA...

1. To protect the interest of and secure fair treatment to policyholders.
2. To bring about speedy and orderly growth of the insurance industry (including annuity and superannuation payments), for the benefit of the common man, and to provide long term funds for accelerating growth of the economy.
3. To set, promote, monitor and enforce high standards of integrity, financial soundness, fair dealing and competence of those it regulates.
4. To ensure that insurance customers receive precise, clear and correct information about products and services and make them aware of their responsibilities and duties in this regard.
5. To ensure speedy settlement of genuine claims, to prevent insurance frauds and other malpractices and put in place effective grievance redressal machinery.
6. To promote fairness, transparency and orderly conduct in financial markets dealing with insurance and build a reliable management information system to enforce high standards of financial soundness amongst market players.
7. To take action where such standards are inadequate or ineffectively enforced.
8. To bring about optimum amount of self-regulation in day to day working of the industry consistent with the requirements of prudential regulation.

Duties, Powers and Functions of IRDA

Section 14 of IRDA Act, 1999 lays down the duties, powers and functions of IRDA

1. Subject to the provisions of this Act and any other law for the time being in force, the Authority shall have the duty to regulate, promote and ensure orderly growth of the insurance business and re-insurance business.

2. Without prejudice to the generality of the provisions contained in sub-section (1), the powers and functions of the Authority shall include,

a) issue to the applicant a certificate of registration, renew, modify, withdraw, suspend or cancel such registration;

b) protection of the interests of the policy holders in matters concerning assigning of policy, nomination by policy holders, insurable interest, settlement of insurance claim, surrender value of policy and other terms and conditions of contracts of insurance;

c) specifying requisite qualifications, code of conduct and practical training for intermediary or insurance intermediaries and agents;

d) specifying the code of conduct for surveyors and loss assessors;

e) promoting efficiency in the conduct of insurance business;

f) promoting and regulating professional organizations connected with the insurance and re-insurance business;

g) levying fees and other charges for carrying out the purposes of this Act;

h) calling for information from, undertaking inspection of, conducting enquiries and investigations including audit of the insurers, intermediaries, insurance intermediaries and other organizations connected with the insurance business;

i) control and regulation of the rates, advantages, terms and conditions that may be offered by insurers in respect of general insurance business not so controlled and regulated by the Tariff Advisory Committee under section 64U of the Insurance Act, 1938 (4 of 1938);

j) specifying the form and manner in which books of account shall be maintained and statement of accounts shall be rendered by insurers and other insurance intermediaries;

k) regulating investment of funds by insurance companies;

l) regulating maintenance of margin of solvency;

m) adjudication of disputes between insurers and intermediaries or insurance intermediaries;

n) supervising the functioning of the Tariff Advisory Committee;

o) specifying the percentage of premium income of the insurer to finance schemes for promoting and regulating professional organizations referred to in clause (f);

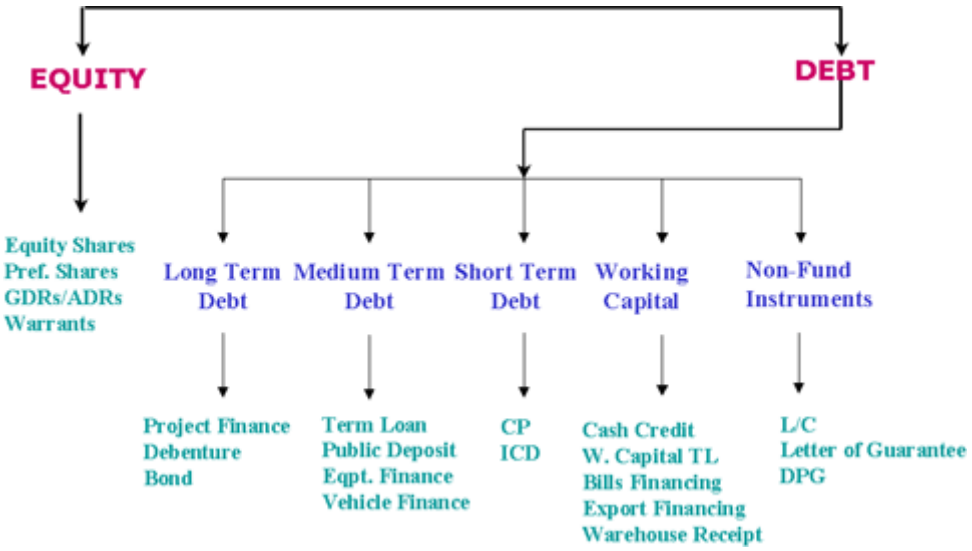
p) specifying the percentage of life insurance business and general insurance business to be undertaken by the insurer in the rural or social sector; and

q) exercising such other powers as may be prescribed from time to time,

IRDA consists of a Chairman and some permanent as well as part time members. The regulations, however, are enacted under the guidance of a statutory advisory committee.

2.8 Financial instruments in India

Different types of Financial Instruments



3 types of financial market instruments:

Money market instruments.

Capital market instruments.

Hybrid instruments.

1. **Money Market**

The money market can be defined as a market for short-term money and financial assets that are near substitutes for money. The term short-term means generally a period up to one year and near substitutes to money is used to denote any financial asset which can be quickly converted into money with minimum transaction cost.

2. **Money market instruments**

- Call/Notice Money
- Treasury Bills
- Term Money

- Certificate of Deposit
- Commercial Papers

3. **Call /Notice-Money Market**

Call/Notice money is the money borrowed or lent on demand for a very short period. When money is borrowed or lent for a day, it is known as Call (Overnight) Money.

Intervening holidays and/or Sunday are excluded for this purpose. Thus money, borrowed on a day and repaid on the next working day, (irrespective of the number of intervening holidays) is : Call Money& quote; When money is borrowed or lent for morethan a day and up to 14 days, it is &quote; Notice Money& quote;. No collateral securityis required to cover these transactions.

4. **Inter-Bank Term Money**

Inter-bank market for deposits of maturity beyond 14 days is referred to as the term money market. The entry restrictions are the same as those for Call/Notice Money except that, as per existing regulations, the specified entities are not allowed to lend beyond 14 days.

5. **Treasury Bills**

Treasury Bills are short term (up to one year) borrowing instruments of the union government. It is an IOU of the Government. It is a promise by the Government to pay a stated sum after expiry of the stated period from the date of issue (14/91/182/364 days

i.e. less than one year). They are issued at a discount to the face value, and on maturitythe face value is paid to the holder. The rate of discount and the corresponding issue price are determined at each auction.

6. **Certificate of Deposits**

Certificates of Deposit (CDs) is a negotiable money market instrument and issued in dematerialized form or as a Usance Promissory Note, for funds deposited at a bank or other eligible financial institution for a specified time period. Guidelines for issue of CDs are presently governed by various directives issued by the Reserve Bank of India, as amended from time to time.

7. CDs can be issued by (i) scheduled commercial banks excluding Regional Rural Banks (RRBs) and Local Area Banks (LABs); and (ii) select all-India Financial Institutions that have been permitted by RBI to raise short-term resources

within the umbrella limit fixed by RBI.

Banks have the freedom to issue CDs depending on their requirements. An FI may issue CDs within the overall umbrella limit fixed by RBI, i.e., issue of CD together with other instruments viz., term money, term deposits, commercial papers and inter-corporate deposits should not exceed 100 per cent of its net owned funds, as per the latest audited balance sheet.

8. **Commercial Paper**

CP is a note in evidence of the debt obligation of the issuer. On issuing commercial paper the debt obligation is transformed into an instrument. CP is thus an unsecured promissory note privately placed with investors at a discount rate to face value determined by market forces. CP is freely negotiable by endorsement and delivery.

9. A company shall be eligible to issue CP provided - (a) the tangible net worth of the company, as per the latest audited balance sheet, is not less than Rs. 4 crore; (b) the working capital (fund-based) limit of the company from the banking system is not less than Rs.4 crores and (c) the borrowal account of the company is classified as a Standard Asset by the financing bank/s. The minimum maturity period of CP is 7 days. The minimum credit rating shall be P-2 of CRISIL or such equivalent rating by other agencies. (for more details visit www.indianmba.com faculty column)

10. **Capital Market Instruments**

The capital market generally consists of the following long term period i.e., more than one year period, financial instruments; In the equity segment Equity shares, preference shares, convertible preference shares, non-convertible preference shares etc and in the debt segment debentures, zero coupon bonds, deep discount bonds etc.

11. **Hybrid Instruments**

Hybrid instruments have both the features of equity and debenture. This kind of instruments is called as hybrid instruments. Examples are convertible debentures, warrants etc.

Summary

A financial system functions as an intermediary and facilitates the flow of funds from the areas of surplus to the areas of deficit. It may be defined as a set of institutions, instruments and markets which fosters savings and channels them to their most efficient use. The capital market provides the fund resources needed by medium and large-scale industries by channeling long-term funds (with more than 1 year maturity).*The capital market consists of primary and secondary markets.* Primary market deals with the issue of new instruments by the corporate sector such as equity shares, preference shares and debentures. Secondary market is the one which provides liquidly and marketability to those long term instruments earlier created by the primary market. The secondary market consists of 23 stock exchanges including the NSE (National Stock Exchange), the OTCEI (Over-the-Counter Exchange), of India and ISEIL (International Stock Exchange of India Ltd.). Public issues of the companies were controlled by the Capital Issue Control act, 1947. Pricing of the issues were determined by the Controller of Capital Issues. The objective was to present the diversion of investible resources to non-essential projects. The above Act was repealed on May 27, 1992 and CCI was abolished as the practice of government control over capital issues as well as overpricing of issues has lost its relevance in the changed circumstances. The SEBI Act, 1992 was established and as a consequence, the issue of capital and pricing of issue by corporate entities had become free of prior approval. The objective of the SEBI Act, 1992 was to ensure proper disclosure and investor protection through issuing certain guidelines.

The stock exchange is an auction market in shares and other securities. A bull is the buyer and a bear is the seller in the market. Stock exchanges regulate the trading activities and ensure a measure of safety and fair dealing to the investors. Earlier Trading on all stock exchanges, was being carried out by "public outing 'in the trading ring which was an out-dated and in efficient system, resulted lack of transparency in trade. The first exchange to introduce screen bused trading in India was the over the counter Exchange of India (OTCE 1). After the commence of the activities of National Stock Exchange (NSE), the screen based trading received a big boost since trading terminals were set up all over the country for getting nationwide access to investors and terminals were networked through satellite links.

The most important constituent of money market is RBI who ensures that liquidity and short-term interest rates are maintained at levels required for achieving objectives of monitory policy. The development and regulation of money markets in the Indian Financial system is an important function of RBI. RBI introduced new instruments reducing dependence of participants on uncollateralized exposure facile rate price discovery in the short-end and upgrades the payment system infrastructure. For the past few years, the RBI has been trying to develop a proper short-term rupee yield curve with deep liquidity in the money markets.

The banking institutions of India play a major role in the economy of the country. The banking institutions are the providers of depository and transaction services. These activities are the major sources of creating money. The banking institutions are the major sources of providing loans and other credit facilities to the clients. Apart from the banking financial institutions, there are a number of specialized financial institutions in India that have been incorporated for a definite purpose. These institutions include the insurance companies, the housing finance companies, mutual funds, merchant banks, credit reporting and debt collection companies and many more. Apart from these, there are several other financial institutions that are existing in the country. These are the stock brokers and sub-brokers, portfolio managers, investment advisors, underwriters, foreign institutional investors and many more.

Chapter 3 Investment Banking – With Reference To India Examples

3.1 CONCEPT

An **investment bank** is a financial intermediary that performs a variety of services. This includes underwriting, acting as an intermediary between an issuer of securities and the investing public, facilitating mergers and other corporate reorganizations, and also acting as a broker for institutional clients.

An investment bank is a financial institution that assists individuals, corporations and governments in raising capital by underwriting and/or acting as the client's agent in the issuance of securities (Sethi, 2019). An investment bank may also assist companies involved in mergers and acquisitions, and provide ancillary services such as market making, trading of derivatives, fixed income instruments, foreign exchange, commodities, and equity securities.

There are two main lines of business in investment banking. Trading securities for cash or for other securities (i.e., facilitating transactions, market-making), or the promotion of securities (i.e., underwriting, research, etc.) is the "sell side", while dealing with pension funds, mutual funds, hedge funds, and the investing public (who consume the products and services of the sell-side in order to maximize their return on investment) constitutes the "buy side". Many firms have buy and sell side components

3.2 CASE EXAMPLE OF AN INVESTMENT BANK – Kotak Investment Banking

Kotak Investment Banking, a pioneer and leader in the equity capital markets, has worked on the development of some of the most path-breaking innovations in the Indian capital markets including the introduction of book building in public offers and the introduction of Qualified Institutional Placements (QIPs) in India. The firm has a strong track record of managing several industry-defining deals and has been the book runner for some landmark government disinvestments.

Key Recent Deals

In FY2011, Kotak Investment Banking was the lead manager to twelve out of the twentysix Initial /Follow on Public Equity Offerings (above Rs. 2.5 billion)

accounting for ~ 62% of the total money raised in these offerings. They have helped companies raise overRs 350 billion in the domestic markets during FY2011. Some of their recent transactionsinclude:

IPOs

- Muthoot Finance: In 2011, Book Running Lead Manager, Rs. 9 bn
- Coal India: In 2010, Book Running Lead Manager, Rs. 152 bn
- Jaypee Infratech: In 2010, Book Running Lead Manager, Rs. 22.3 bn
- SKS Microfinance: In 2010, Book Running Lead Manager, Rs. 16.3 bn
- DB Realty: In 2010, Book Running Lead Manager, Rs. 15 bn
- Prestige Estates Projects: In 2010, Book Running Lead Manager, Rs. 12 bn ,and many others.

Indian Depository Receipts (IDRs)

- Standard Chartered: In 2010, Book Running Lead Manager – first-ever issuance of an IDR, Rs. 24.8 bn

FPOs

- Tata Steel: In 2011, Book Running Lead Manager, Rs. 34.8 bn
- NMDC: In 2010, Book Running Lead Manager, Rs. 99.3 bn
- NTPC: In 2010, Book Running Lead Manager, Rs 84.8 bn
- Rural Electrification Corporation: In 2010, Book Running Lead Manager, Rs 35.3 bn

QIPs

- M&M Financial Services: In 2011, Book Running Lead Manager, Rs. 4.3 bn
- Adani Enterprises: In 2010, Joint Global Coordinator and Book Running Lead Manager, Rs. 40 bn
- Bharat Forge: In 2010, Joint Global Coordinator and Book Running Lead Manager - first-ever simultaneous yet unlinked issuance of Equity and Non-Convertible Debentures + Warrants in India, Rs 6.2 bn
- Godrej Consumer Products: In 2010, Book Running Lead Manager, Rs. 5.3 bn
- Strides Arcolab: In 2010, Book Running Lead Manager, Rs. 4.6 bn
- Jubilant Organosys: In 2010, Book Running Lead Manager, Rs. 3.9 bn
- Jyothy Laboratories: In 2010, Book Running Lead Manager, Rs. 2.3 bn
- Mahindra Forgings: In 2010, Book Running Lead Manager, Rs. 1.8 bn And many others.

Rights Issues

- Piramal Glass: In 2009, Lead Manager, Rs. 1.9 bn
- State Bank of India: In 2008, Lead Manager, Rs. 167 bn Landmark Transactions
- Coal India: Largest IPO in India till date, Rs 152 bn
- SKS Microfinance: First ever Initial Public Offer by a Microfinance Company in India
- Bharat Forge: First ever simultaneous yet unlinked Issuance of Equity and NCD + Warrants through a Qualified Institutional Placement
- NTPC: First FPO under alternate book building route
- Standard Chartered: First ever issuance of Indian Depository Receipts (IDRs)
- HDFC: First ever QIP of NCD with detachable warrants
- State Bank of India: Largest ever Equity Issuance in India, Rs. 167 bn
- DLF: Largest Real Estate IPO in India till date, Rs. 91.9 bn etc.

3.3 Role of Investment Banks in India in Merger and Acquisition

The following are important roles of investment bankers when executing mergers andacquisitions:

1) Once management knows the right transactions, investment bankers can keep dealsfrom opening up to auctions.
2) Investment bankers can get the transaction done quickly and efficiently.
3) Investment bankers can help run auctions for pieces of the business that managementdoesn't want.
4) Investment bankers should be brought in only in the late stages to provide a fairnessopinion or a valuation double check against what the internal staff has done. From the standpoint of the Board of Directors of the buyer company, this is a valuable check on management's enthusiasm for the deal. In that case, the investment banker serves a certification purpose.
5) If the company needs to finance the acquisition through an issue of debt or equity,having an investment banker involved is indispensable.
6) An investment banker can provide special skills in structuring a deal that has unusualfeatures.

3.4 What is IPO?

IPO is the first sale of stock by a company to the public (Hartana, 2019). The most common reason for a company to initiate an IPO is in order to raise more capital. One of the most difficult parts of an IPO is to determine the proper price to initially offer the newstock; too high and investors won't be interested, but too low and the company is sacrificing the amount of money that might have been made if they priced it higher.

There is generally a significant amount of risk in an IPO, because the company going public is frequently small or relatively unknown, and hasn't had a chance to prove itself tothe public; as such, they also have the capacity for significant payoffs.

3.5 IPO Underwriting and Role of the Investment Bankers

Investment banks are essentially underwriters (or agent) that serves as the intermediarybetween an issuer of the securities and investing public. Think of it as a glorified version of real estate agents: instead of selling houses, the investment banker is facilitating the sale of companies in the form of shares.

Beginners' Guide to IPO Underwriting

As the underwriter of securities, investment banks can help clients raise capital in theform of stocks and bonds.

1. **Identifying Clients**

An IPO is a process in which a private company is turned into a public company. In otherwords, the company wants to sell its privately-held shares in a public market via the stock exchange platform in return for proceeds for the company's owners.

Everything starts when a client is interested in taking the company public and contact various investment banks for advice. Or it could be the other way round — investment banks identify companies with the potential of getting listed and contact these companies accordingly.

2. **Pre-underwriting Counseling**

During the first meeting, the investment bank gives advice to the client on the processof a stock offering, the pros and cons of becoming a public company, the indicative value of the company and the likelihood of a successful IPO.

It is highly likely that the clients are bank-shopping and so each investment bank will have to do a series of pitching work to get selected.

3. **Signing the Engagement Letter**

Once an investment bank is picked, the investment banking engagement letter is an important part of the process to outline the scope of the work, make sure the Bank is getting paid and most importantly to protect the Bank from legal liabilities as a result of this transaction.

4. **Assembling the Team**

By this time, the investment banking team will switch from the pitch mode to execution mode. At this point the work includes:

- Prepare a detailed outline of the IPO Underwriting timetable
- Recommend the legal counsel (lawyers) to participate in the deal

A typical "project team" includes:

- Core execution team
- Equity Capital Markets team
- In-house legal guys
- Outside legal counsel
- Client representatives

5. **Drafting the SEC Registration Document**

The investment banking team starts by drafting the Prospectus, the major document that needs to be submitted to the SEC (Securities and Exchange Commission) for approval. This document is an important source of information to make sure the investors are adequately informed before buying the shares of the company.

In most cases the prospectus contains hundreds of pages and a lot of energy and care is put into this document to make sure everything is correct and that it satisfies all the SEC requirements.

6. **Constructing Financial Projection Models**

At the same time, a financial projection will be made in order to determine the company's market value. This can be done based on client's own projection (with sanity checks based on industry parameters), or build from

scratch if the client does not have a detailed projection model.

Once the projection is done, the investment bank can determine the value of the company using DCF and other relevant methodologies. Comparable company analysis is also done to determine the value based on how the clients' peers are evaluated in the public market.

7. Consulting On the Pricing of IPO

The capital market team works closely with the institutional sales (on the sales and trading side of investment bank) to "smell" the receptivity of the client from the public as well as the general market sentiment at that time. The equity capital market will then advise on the indicative price of the IPO.

The capital market team/core execution team will also prepare a one-page "sales page" for the institutional sales to market the deal to their clients (i.e. the hedge funds, pension funds and other institutional investors interested in IPOs).

8. Initiating the Research Report

For an IPO, a special situation occurs when the research analyst is brought over the "Chinese Wall" to help initiate the coverage of the company.

Normally, research analysts are barred from the dealings with investment banks to avoid confidential information (in the corporate finance department) being leaked to the public via the research analyst.

In this case, the research analyst will actually work closely with the bankers and the clients to prepare a report. This report is typically a positive one and is used as a way to "market" the client to the public.

As you can see, a #1 ranked research analyst will be a valuable asset to the investment bank as a whole as it attracts IPO business in the industry he/she is covering.

9. Forming and Managing the Syndicate

In many cases, the book-runner of the IPO (i.e. the investment bank that helps to prepare the "book" for the client) cannot do all the work alone. In order to make sure all the new stocks can be sold on the launch date, the investment bankers will contact their competitors (i.e. other investment bankers) to take part in this selling process.

This process is known as forming the "syndicate" — while the profit of being a syndicate is much less than that of a book-runner, investment banks are generally interested because it is a relatively easy job (provided the client is of good quality) and it is useful to brand building to get involved in the deal.

In the case of the "hot" IPOs, it is really a skill for the book-runner to allocate the shares appropriately for all the parties, so there is actually a lot of work involved.

10. **Identifying Anchor Investors**

Sometimes, it is a good strategic to consider having anchor investors to snap up a considerable portion of the new shares. They can be either institutional investors (e.g. private equity funds and pension funds), a strategic investor (e.g. a big player in similar industry as the client), or even rich families (this is more prevalent in Asia).

Anchor investors are great in shoring up confidence among the public and increase the "scarcity factor" on the IPO day.

11. **Price Pegging**

The pegging (stabilizing) the price of the issue is often done during the offering and distribution period. This after-marketing trading support is critical for the offering success and is arguably the part where investment banks can distinguish themselves from their lesser peers.

3.6 Investment banks in India- Top 10

Investment banks in India are particular type of organizations that sponsors capital needs of an enterprise. Executing private placement, submitting bond, functioning as a mediator and assisting mergers and acquisitions are some of the important features of Investment banking in India.

The top 10 Investment Banks in India offers large number of financial advisory services by tracking the economic trends, besides providing financial assistance to corporates and retail customers. Some of them are:

Avendus Capital

An investment bank providing mergers and acquisitions, fixed returns, controlled finance, calculated advisory facilities and Private Equity Syndication to its customers ranging from investors to corporates. The bank has a powerful

research competence which it utilizes to close business deals in hostile circumstances. It presently concentrates on sectors where Indian firms have strategic expansion advantage namely Healthcare, Pharmaceuticals, IT Services, Consumer goods, manufacturing, etc.

Bajaj Capital

The Bajaj Capital Group is one of the renowned Investment consultant and Financial Planning firms in India. It is certified under the Category I of Merchant Bankers by SEBI. Bajaj Capital provides custom-made Fiscal Planning facilities and investment consultation to the investors, organizational investors, corporate, high income patrons and Non-Resident Indians (NRIs).

Being one of the biggest distributors of economic goods, Bajaj provides an extensive range of investment schemes such as general insurance, life insurance,mutual funds, etc. to both public and private institutions.

Cholamandalam Investment & Finance Company

A combined fiscal service provider of three firms namely Cholamandalam DBS Finance Limited (CDFL), DBS Cholamandalam Distribution Limited and DBS Cholamandalam Securities Limited, Cholamandalam DBS operates in 16 international markets. DBS provides an extensive range of facilities to small and medium sized enterprise, corporate, customers and comprehensive banking activities across Middle East and Asia.

ICICI Securities Ltd

India's biggest equity house, ICICI Securities Ltd provide back-to-back banking solutions through its extensive distribution network to cater to the varied needs of its retail and corporate clients. The firm is listed under the Monetary Authority of Singapore (MAS) and Financial Services Authority, UK and has an authoritative place in the core divisions of its functional areas such as consultant services, fiscalgood distribution, Equity Capital Markets Advisory Services, etc.

IDFC

Initiated in 1997 in Chennai, IDFC undertook the responsibility of providing financial support to 332 projects accruing a profit of up to Rs 2, 20, 400 million.The sectors under IDFC's financial assistance are infrastructure, agri related business, transportation, healthcare, tourism and others.

Kotak Mahindra Capital Company

Initiator and leader in equity capital markets, Kotak Investment Banking has undertaken the developmental work of most ground breaking advances in the Indian capital markets comprising the launch of book building and Qualified Institutional Placements (QIPs) in India. The investment bank has an impressivetrack record of controlling various sectors and has played a major role in the government's milestone disinvestments.

SBI Capital Markets

SBICAPS is India's foremost investment bank and project consultant, aiding local firms in capital enlistment endeavors for last many years. The firm started itoperations in 1986 and is an entirely owned subordinate of the State Bank ofIndia. Asian Development Bank (ADB) possesses 13.84% stakes in equity segment of SBICAPS.

Tata Investment Corporation Limited (TICL)

A non-banking financial company (NBFC), TICL is listed with the Reserve Bank of India under the group of 'Investment Company'. The firm's commercial activities constitute mainly of endowing in long-standing investments in equity ofthe firms in various sectors. The chief source of return for the firm entails incomeon investment trading and income accrued on dividend.

Yes Bank

This Investment Banking association is engaged in the classification, arrangementand implementation of deals for their clients in varied sectors and nations. Some of the archetypal transactions incorporate divestitures, private equity syndication,mergers & acquisitions and IPO consultation.

UTI Securities Ltd

Endorsed as a self-regulating professional body in 1994, UTI Securities Ltd., is one of the renowned investment bank of India. After the termination of Unit Trustof India (UTI) Act, the total share fund of UTISEL is now controlled by superintendent of particular enterprise of UTI. The firm has been offering all sorts of investment associated activities which incorporates investment banking and corporate consultation facilities.

3.7 Role and Contribution of Investment Banking in India

Investment banking India has always been very crucial for the smooth flow of market transactions between various investors, companies, firms and the government. The economic downturn revealed that only the strong can swim against the tide and still remain afloat. Those skeptical must realize that the market has its own upheavals and downturns. When we look at the financial strength of these companies, we just cannotignore them. No wonder, most of these firms bounced back once again. However, the future of Investment banking companies in India looks good, even though we may see new investment guidelines.

The banking scenario in India is itself huge, covering the different facets of the economy.By and large, investment banks in India are itself an institution which generates funds intwo different ways. The first manner in which it works is by drawing public funds via thecapital market by way of selling stock in their company. The other way in which it operates is to seek for venture capital or private equity, as a substitute for a stake in their company. The major work of investment banks includes a lot of consulting. *For instance*, they offer advices on mergers and acquisitions to companies. The other arenawhere they give advice are tracking the market and determining when should a company come out with a public offering and what is the best possible way to manage the public assets of businesses. The role that an investment bank plays sometimes gets overlapped with that of a private brokerage house. The usual advice of buying and selling is also given by investment banks.

There is no demarcating line between the investment banking and other forms of banking in India. This has been observed majorly of late. All banks nowadays want to provide their customers the best of services and create a niche for themselves and that iswhy apart from investment banks, all other banks too are aiming at making it big.

At the macro level, investment banking is related with the primary function of assisting the capital market in its function of capital intermediation, i.e., the movement of financial resources from those who have them (the investors), to thosewho need to make use of them for producing GDP (the issuers). *Over the decades, investment banks have always suited the needs of the finance community and thus become one of the most vibrant and exciting segment of financial services.*

Chapter 4 Forex

4.1 CONCEPT OF FOREIGN EXCHANGE RATE

In finance, an exchange rate (also known as a foreign-exchange rate, forex rate,

FX rate or Agio) between two currencies is the rate at which one currency will

be exchanged for another. It is also regarded as the value of one country's currency in terms of another currency foreign exchange rates. This rate depends on the local demand for foreign currencies and their local supply, country's trade balance, strength of its economy, and other such factors.

An exchange rate is how much it costs to exchange one currency for another. Exchange rates fluctuate constantly throughout the week as currencies are actively traded. This pushes the price up and down, similar to other assets such as gold or stocks.

If the USD/CAD exchange rate is 1.0950, that means it costs 1.0950 Canadian dollars for 1 U.S. dollar. The first currency listed (USD) always stands for one unit of that currency; the exchange rate shows how much of the second currency (CAD) is needed to purchase that one unit of the first (USD).This rate tells you how much it costs to buy one U.S. dollar using Canadian dollars. To find out how much it costs to buy one Canadian dollar using U.S. dollars use the following formula: 1/exchange rate. In this case, 1 / 1.0950 = 0.9132. It costs 0.9132 U.S. dollars to buy one Canadian dollar. This price would be reflected by the CAD/USD pair; notice the position of the currencies has switched.

For example, an interbank exchange rate of 119 Japanese yen (JPY, ¥) to the United States dollar (US$) means that ¥119 will be exchanged for each US$1 or that US$1 will be exchanged for each ¥119. In this case it is said that the price of a dollar in terms of yen is ¥119, or equivalently that the price of a yen in terms of dollars is $1/119.

4.2 Nominal exchange rate and real exchange rate

The nominal exchange rate is the rate at which two currencies can be exchanged for each other in the market. The real exchange rate is the price of domestic goods relative to foreign goods.

Changes in the real exchange rate are related to changes in the nominal exchange rate depending on changes in the price levels of two countries:

For example : if a bottle of US wine can be sold for $20, and the nominal exchange rate is 0.8 Euro per US dollar, then the bottle of US wine is worth 20 x 0.8 = 16 Euro. If a bottle of European wine costs 15 Euro, then 16/15 = 1.07 bottles of European wine can be purchased with the 16 Euro. Putting all of the pieces together, the bottle of US wine can be exchanged for 1.07 bottles of the European wine, and ***the real exchange rate is thus 1.07 bottles of European wine per bottle of US wine.***

Calculating the Real Exchange Rate

$$\frac{\$20\ USD}{US\ bottle} x \frac{0.8\ EUR}{USD} x \frac{1\ Euro\ bottle}{15\ EUR} = 1.07\ \frac{Euro\ bottles}{US\ bottle}$$

$$domestic\ price\ x\ nominal\ exchange\ rate\ x\ \frac{1}{foreign\ price} = real\ exchange\ rate$$

$$real\ exchange\ rate = \frac{nominal\ exchange\ rate\ x\ domestic\ price}{foreign\ price}$$

4.3 2 main types of exchange rate systems, system determines the values of the major currencies, such as the dollar, yen, and mark

The two major types of exchange-rate systems are fixed exchange rates and flexible exchange rates. In a fixed-exchange-rate system, exchange rates are set at officially determined levels. In a flexible-exchange-rate system, exchange rates are determined by conditions of demand and supply in the foreign exchange market. Currently, the major currencies of the world are on a flexible-exchange-rate system.

4.4 Purchasing power parity, or PPP. Does PPP work well empirically?

The "purchasing power parity" is a term used to explain the economic theory that states the exchange rate of two currencies will be in equilibrium or at par with the ratio of their respective purchasing powers **(Eleftheriou and Müller-Plantenberg, 2018)**.

Purchasing power parity, PPP, is the idea that similar foreign and domestic goods, or baskets of goods, should have the same price when priced in terms of the same currency. Purchasing power parity does seem to explain exchange rates in the long run, but over shorter periods it doesn't work well because countries produce very different sets of goods, because some goods aren't traded internationally, and because there are transportation costs and legal barriers.

The formula for purchasing power parity of country 1 w.r.t. country 2 can be derived by dividing the cost of a particular good basket (e.g., good X) in country 1 in currency 1 by the cost of the same good in country 2 in currency2.

Purchasing Power Parity = Cost of good X in currency 1 / Cost of good X in currency 2. A popular practice is to calculate the purchasing power parity of a country w.r.t. the U.S. We can also modify the formula by dividing the cost of good X in currency 1 by the cost of the same good in the U.S. dollars.

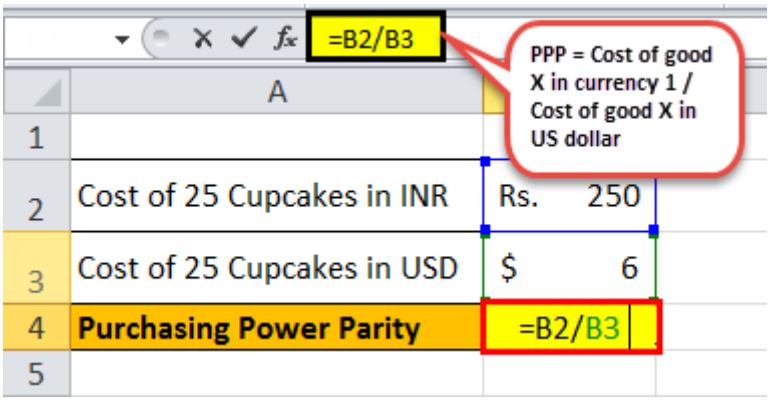
Purchasing Power Parity = Cost of good X in currency 1 / Cost of good X in U.S. dollar

Example: Let us take the example of purchasing power parity between India and the

U.S. Suppose an American visits a particular market in India. The visitor bought 25 cupcakes for ₹250 and noticed that cupcakes are quite cheaper in India. The visitor claimed that, on average, 25 such cupcakes cost $6. Calculate the purchasing power parity between the two countries based on the given information.

Given the cost of 25 cupcakes in INR = ₹250

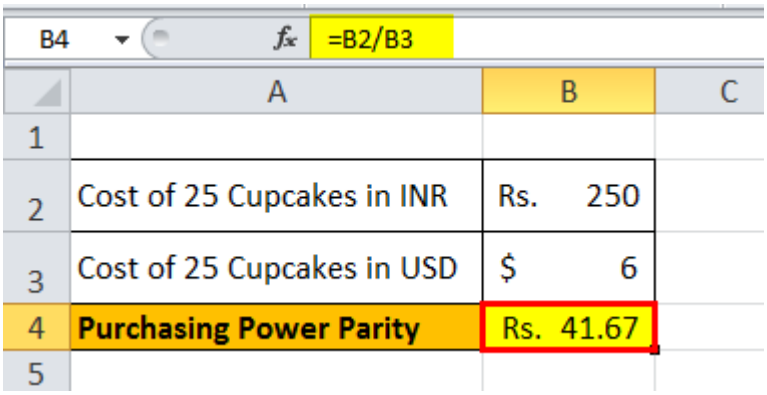
Cost of 25 cupcakes in USD = $6, we can calculate the purchasing power parity of India w.r.t U.S.:



Purchasing power parity = Cost of 25 cupcakes in INR / Cost of 25 cupcakes in USD

= ₹250 / $6

Calculation of purchasing power parity of India w.r.t U.S. will be:



Purchasing Power Parity of India w.r.t U.S. = ₹41.67 per dollar.

Therefore, the purchasing power parity ratio of the exchange for cupcakes is

USD1 = **INR41.67.**

4.5 Fundamental value of a currency, what does saying that a currency is overvalued mean? Why is an overvalued currency a problem? What can a country do about an overvalued currency?

The fundamental value of a currency is the value of the exchange rate that would be determined by free-market forces of demand and supply without government intervention. When the official exchange rate is higher than its fundamental value, it is said to be overvalued. This is a problem, because to maintain the official exchange rate, the central bank will have to buy the currency with official reserve assets. To prevent having an overvalued currency, the country can change the official exchange rate, restrict

international transactions, or use contractionary monetary policy. 5- Discuss the relative advantages and disadvantages of flexible exchange rates, fixed exchange rates, and a currency union.

Flexible exchange rates have the advantage of allowing a country to use expansionary monetary policy to combat recessions, but currency values fluctuate substantially, introducing uncertainty into international transactions. Fixed exchange rates avoid this problem, but a country may have to give up the independent use of monetary policy. This latter factor is a disadvantage when it comes to combating recessions, but might be an advantage in helping keep inflation low. As long as countries can coordinate on overall monetary policy, the fixed exchange rate system can be maintained. A currency union is very similar to a system of fixed exchange rates, but has further advantages.

Costs of trading goods and assets across countries are even lower than under fixed exchange rates and speculative attacks on the currency cannot occur. But a currency union requires an even greater coordination of political and financial institutions than a fixed exchange rate system does.

4.6 Foreign exchange market

Broadly defined, the foreign exchange (FX) market encompasses the conversion of purchasing power from one currency into another, bank deposits of foreign currency, the extension of credit denominated in a foreign currency, foreign trade financing, and trading in foreign currency options and futures contracts.

4.7 Difference between the retail or client market and the wholesale or interbank market for foreign exchange?

The market for foreign exchange can be viewed as a two-tier market. One tier is the wholesaler interbank market and the other tier is the retail or client market.

International banks provide the core of the FX market. They stand willing to buy or sell foreign currency for their own account. These international banks serve their retail clients, corporations or individuals, in conducting foreign commerce or making international investment in financial assets that requires foreign exchange. Retail transactions account for only about 14 percent of FX trades. The other 86 percent is interbank trades between international banks,

or non-bank dealers large enough to transact in the interbank market.

4.8. Market participants in the Foreign exchange market?

The market participants that comprise the FX market can be categorized into five groups:

International banks,

Bank customers,

Non-bank dealers,

FX brokers,

and Central banks.

International banks provide the core of the FX market. Approximately 100 to 200 banks worldwide make a market in foreign exchange, i.e., they stand willing to buy or sell foreign currency for their own account. These international banks serve their retail clients, the **bank customers**, in conducting foreign commerce or making international investment in financial assets that requires foreign exchange. **Non-bank dealers** are large non-bank financial institutions, such as investment banks, mutual funds, pension funds, and hedge funds, whose size and frequency of trades make it cost-effective to establish their own dealing rooms to trade directly in the interbank market for their foreign exchange needs. Most interbank trades are speculative or arbitrage transactions where market participants attempt to correctly judge the future direction of price movements in one currency versus another or attempt to profit from temporary price discrepancies in currencies between competing dealers. **FX brokers** match dealer orders to buy and sell currencies for a fee, but do not take a position themselves. Interbank traders use a broker primarily to disseminate as quickly as possible a currency quote to many other dealers. **Central banks** sometimes intervene in the foreign exchange market in an attempt to influence the price of its currency against that of a major trading partner, or a country that it "fixes" or "pegs" its currency against. Intervention is the process of using foreign currency reserves to buy one's own currency in order to decrease its supply and thus increase its value in the foreign exchange market, or alternatively, selling one's own currency for foreign currency in order to increase its supply and lower its price.

4.9 Currency trading at a discount or at a premium in the forward market

The forward market involves contracting today for the future purchase or sale of foreign exchange. The forward price may be the same as the spot price, but usually it is higher (at a premium) or lower (at a discount) than the spot price.

4.10 Banks find it necessary to accommodate their clients' needs to buy or sell FX forward, in many instances for hedging purposes. How can the bank eliminate the currency exposure it has created for itself by accommodating a client's forward transaction?

Swap transactions provide a means for the bank to mitigate the currency exposure in a forward trade. A swap transaction is the simultaneous sale (or purchase) of spot foreign exchange against a forward purchase (or sale) of an approximately equal amount of the foreign currency.

To illustrate, suppose a bank customer wants to buy dollars three months forward against British pound sterling. The bank can handle this trade for its customer and simultaneously neutralize the exchange rate risk in the trade by selling (borrowed) British pound sterling spot against dollars. The bank will lend the dollars for three months until they are needed to deliver against the dollars it has sold forward. The British pounds received will be used to liquidate the sterling loan.

4.11 Triangular arbitrage, Condition that will give rise to a triangular arbitrage opportunity?

Triangular arbitrage is the process of trading out of the U.S. dollar into a second currency, then trading it for a third currency, which is in turn traded for U.S. dollars **(Nan and Kaizoji, 2019**). The purpose is to earn an arbitrage profit via trading from the second to the third currency when the direct exchange between the two is not in alignment with the cross exchange rate. Most, but not all, currency transactions go through the dollar. Certain banks specialize in making a direct market between non-dollar currencies, pricing at a narrower bid-ask spread than the cross-rate spread.

Nevertheless, the implied cross-rate bid-ask quotations impose a discipline on the non-dollar market makers. If their direct quotes are not consistent with

the cross exchange rates, a triangular arbitrage profit is possible.

4.12 Conversion Spreads

When you go to the bank to covert currencies, you most likely won't get the market price that traders get. The bank or currency exchange house will **markup the price** so they make a profit, as will credit cards and payment services providers such as PayPal when a currency conversion occurs.

If the USD/CAD price is 1.0950, the market is saying it costs 1.0950 Canadian dollars to buy 1 U.S. dollar. At the bank though, it may cost 1.12 Canadian dollars. The difference between the market exchange rate and the exchange rate they charge is their profit. To calculate the percentage discrepancy, take the difference between the two exchange rates, and divide it by the market exchange rate: 1.12 - 1.0950 = 0.025/1.0950 = 0.023. Multiply by 100 to get the percentage markup: 0.023 x 100 = 2.23%..

A markup will also be present if converting U.S. dollars to Canadian dollars. If the CAD/USD exchange rate is 0.9132 (see section above), then the bank may charge 0.9382. They are charging you more U.S. dollars than the market rate. 0.9382 - 0.9132 = 0.025/0.9132 = 0.027 x 100 = 2.7% markup.

4.13 Definitions and Formulae

Definitions & Formulae

* Actual exchange rate (e) = amount of foreign money per dollar

* Implied purchasing power parity (PPP) $= \dfrac{\text{Foreign price } (P_F)}{\text{Domestic price } (P_D)}$

* Over or under valuation $= \dfrac{PPP - e}{e}$

* Real exchange rate $(e_R) = \dfrac{\text{Domestic price} * e}{\text{Foreign price}} = \dfrac{\text{Domestic price}}{\text{Foreign price/e}}$

* $\dfrac{\text{Actual exchange rate (e)}}{\text{Real exchange rate } (e_R)} = \dfrac{\text{Foreign price } (P_F)}{\text{Domestic price } (P_D)} = PPP$

Forward Exchange Rate

Forward exchange rate is the ***exchange rate*** at which a party is willing to enter into a contract to receive or deliver a currency at some future date. Forward rates can be calculated from spot rates and interest rates using the formula

Spot x (1 +domestic interest rate)/ (1 +foreign interest rate),

Where the 'Spot' is expressed as a direct rate (ie as the number of domestic currency units one unit of the foreign currency can buy).

Using the relative purchasing power parity, forward exchange rate can be calculated using the following formula:

$$f = s \times \left[\frac{1 + I_d}{1 + I_f}\right]^n$$

Where,

f is forward exchange rate in terms of units of domestic currency per unit of foreign currency;

s is spot exchange rate, in terms of units of domestic currency per unit of foreign currency;

I_d domestic inflation rate;

I_f is foreign inflation rate; and

n is number of time period

Spot Exchange Rate

Spot exchange rate (or FX spot) is the current rate of exchange between two currencies. It is the rate at which the currencies can be exchanged immediately.

According to the definition, delivery is theoretically immediate; however, conventions of currency markets allow for up to two days for settlement of a transaction.

Spot exchange rates are presented either as a direct quote or as indirect quote.

4.14 Converting from Spot to Forward Rate

For simplicity, consider how to calculate the forward rates for zero-coupon bonds. A basic formula for calculating forward rates looks like this:

Forward = (((1 + (spot rate for year "x") ^ "x") / ((1 + (spot rate for year "y") ^ "y")) - 1

In the formula, "x" is the end future date (say, 5 years), and "y" is the closer future date (3 years), based on the spot rate curve.

Examples

1. On January 1, 2000 Xerox Corporation signs a contract with Japanese

government to supply office machinery. The contract stipulates that Xerox will receive 500,000 Yen on January 1, 2001. Xerox wishes to insure itself against exchange rate risk.

The yield on a one year US Treasury bill on January 1, 2000 is 5.73% and the yield on a one year Japanese Treasury bond is 1.17%. The spot exchange rate on the same date is 110 Yen per US dollar. Suppose that Xerox uses the forward market to insure itself against exchange rate risk.

Compute the amount of dollars that Xerox will receive for sure.

SOL. Using Covered Interest rate parity, the implied forward exchange rate is F = [(1+0.0117)/(1+0.0573)]* 110 = 105.26,

(Yen per dollar) hence the amount of dollars that Xerox will receive is

$500,000/105.26 = 4750.14.

2. PROBLEM 1 remains the same. To add on- Suppose that there were no forward markets and that Xerox does not want any exposure to exchange rate risk. The company can still eliminate all exchange rate risk by borrowing in Yen and investing in US Treasury bonds.

   a. Compute the magnitude of Yen borrowing that Xerox will have to conduct to Insure against exchange rate risk. SOL. Xerox will borrow in yen the amount 500,000/(1+0.0117)=494217.65, that is the present value of 500,000 yen. Then invest this amount, in dollars, in U.S. t-bills. The amount of USD invested is 500,000/((1+0.0117)*110), and the amount of dollars received at the end of the year is [500,000/((1+0.0117)*110)]*(1+0.0573).

   b. Compute the amount of dollars that Xerox will receive. SOL. As shown above the amount of dollars Xerox will receive is [500,000/((1+0.0117)*110)]*(1+0.0573)=$4750.33

3. A CD/$ bank trader is currently quoting a small figure bid-ask of 35-40, when the rest of the market is trading at CD1.3436-CD1.3441. What is implied about the trader's beliefs by his prices?

   The trader must think the Canadian dollar is going to appreciate against the U.S. dollar and therefore he is trying to increase his inventory of Canadian dollars by discouraging purchases of U.S. dollars by standing

willing to buy $ at only CD1.3435/$1.00 and offering to sell from inventory at the slightly lower than market price of CD1.3440/$1.00.

4. Over the past six years, the exchange rate between Swiss franc and U.S. dollar, SFr/$, has changed from about 1.30 to about 1.60. Would you agree that over this six-year period, the Swiss goods have become cheaper for buyers in the United States? (UPDATE? SF has gone from SF1.67/$ to SF1.04/$ over the last six years.)

   SOL. The value of the dollar in Swiss francs has gone up from about 1.30 to about 1.60. Therefore the dollar has appreciated relative to the Swiss franc, and the dollars needed by Americans to purchase Swiss goods have decreased. Thus, the statement is correct.

5. The current spot exchange rate is $1.95/£ and the three-month forward rate is $1.90/£. Based on your analysis of the exchange rate, you are pretty confident that the spot exchange rate will be $1.92/£ in three months. Assume that you would like to buy or sell £1,000,000.

   a. What actions do you need to take to speculate in the forward market? What is the expected dollar profit from speculation?
   b. What would be your speculative profit in dollar terms if the spot exchange rate actually turns out to be $1.86/£.

Solution:

a. If you believe the spot exchange rate will be $1.92/£ in three months, you should buy £1,000,000 forward for $1.90/£. Your expected profit will be: $20,000 = £1,000,000 x ($1.92 -$1.90).

b. If the spot exchange rate actually turns out to be $1.86/£ in three months, your loss from the long position will be: -$40,000 = £1,000,000 x ($1.86 -$1.90).

6. Exchange rate between US$ and British £ on 1 January 2012 was $1.55 per £. This is our spot exchange rate. Inflation rate and interest rate in US were 2.1% and 3.5% respectively. Inflation rate and interest rate in UK were 2.8% and 3.3%.

   Estimate the forward exchange rate between the countries in $/£.

Sol. Using relative purchasing power parity, forward exchange rate comes out to be

$$f = \$1.5507/£ \times \left[\frac{1+3.3\%}{1+3.3\%}\right]^n = \$1.554/£$$

Using the interest rate parity, forward exchange rate is

$$f = \$1.5507/£ \times \left[\frac{1+2.1\%}{1+2.8\%}\right]^n = \$1.5401/£$$

Actual exchange rate was \$1.6244£. US\$ has depreciated more than predicated by the relative purchasing power parity and interest rate parity.

7. Re: SPOT RATES

a. **A US company is required to pay 20 billion Chinese Yuan (CNY) to a Chinese company today, 18 June 2013. How many USD the company has to convert in spot forex market to get the required CNY. From XE.com, we get that 1 CNY = 0.163152 USD on 18 June 2013, at 23.33 UTC. The rate is based on mid-market quotes**.

Sol. Since 1 CNY = 0.163152 USD, 20 billion CNY must equal 3.26304 billion USD (0.163152 × 20 billion). The company must sell 3.26304 billion USD to get 20 billion CNY to pay to the Chinese company.

b. In example 1, we used the mid-market quote to calculate the amount of US dollars needed. In reality, exchange rates are quoted as a range, showing both bid and ask prices. Current live CNY/USD bid-ask quote obtained are 0.1619 – 0.1623. How many USD the company has to convert in spot forex market to get the required CNY.

Sol. The ask price is the price at which the dealer is willing to sell

CNY in return of USD. The bid price is the price at which the currency dealer is willing to buy CNY; in return of USD.

The US company has USD and it wants to buy CNY, so it must pay the ask price i.e. 0.1623. In order to buy 20 billion CNY, it has to pay USD 3.246 billion.

8. Suppose a hypothetical two-year bond is yielding 10% while a one-year bond is yielding 8%. The return produced from the two-year bond is the same as if an investor receives 8% for the one-year bond and then uses a rollover to roll it over into another one-year bond at a forward rate. Convert the spot rates into a forward rate of investment.

   Sol. (1+.10) (1+.10)/1.08 – 1 =1 2.04%. That hypothetical 12.04% is the forward rate of the investment.

9. Suppose the spot rate for the three-year bond is 7% and the four-year is 6%. Calculate forward rate between years three and four.

   Hints:

   The equivalent rate required if the three-year bond is rolled over into a one-year bond after it matures -- would be 3.06%.

Chapter 5 Corporate Restructuring – With Reference To Indian Examples

5.1 Corporate restructuring

Restructuring is the corporate management term for the act of partially dismantling and reorganizing a company for the purpose of making it more efficient and therefore more profitable. It generally involves selling off portions of the company and making severe staff reductions.

Restructuring is often done as part of a bankruptcy or of a takeover by another firm, particularly a leveraged buyout by a private equity firm. It may also be done by a new CEO hired specifically to make the difficult and controversial decisions required to save or reposition the company.

The "Corporate restructuring" is an umbrella term that includes mergers and consolidations, divestitures and liquidations and various types of battles for corporate control. The essence of corporate restructuring lies in achieving the long run goal of wealth maximization.

5.2 Characteristics of Corporate restructuring

The selling of portions of the company, such as a division that is no longer profitable or which has distracted management from its core business, can greatly improve the company's balance sheet. Staff reductions are often accomplished partly through the selling or closing of unprofitable portions of the company and partly by consolidating or outsourcing parts of the company that perform redundant functions (such as payroll, human resources, and training) left over from old acquisitions that were never fully integrated into the parent organization.

Other characteristics of restructuring can include:

- Changes in corporate management (usually with golden parachutes)
- Retention of corporate management sometimes "stay bonus" payments or equity grants
- Sale of underutilized assets, such as patents or brands
- Outsourcing of operations such as payroll and technical support to a more efficient third party
- Moving of operations such as manufacturing to lower-cost locations

- Reorganization of functions such as sales, marketing, and distribution
- Renegotiation of labor contracts to reduce overhead
- Refinancing of corporate debt to reduce interest payments
- A major public relations campaign to reposition the company with consumers
- Forfeiture of all or part of the ownership share by pre restructuring stock holders

5.3 Rationale and importance of corporate restructuring

It was a time, M&A activities were largely restricted to IT and telecom sectors. They have now spread across the economy. As Business world recently reported, this is the fourth wave of corporate deal-making in India. The first happened in the 1980s, led by corporate raiders such as Swaraj Paul, Manu Chhabria and R P Goenka, in the very early days of reforms. In view of the license raj prevailing then, buying a company was one of the best ways to generate growth, for ambitious corporates. In the early 1990s, in the liberalized economy, Indian business houses began to feel the heat of competition.

Conglomerates that had lost focus were forced to sell non-core businesses that could not withstand competitive pressures. The Tatas, for instance, sold TOMCO to Hindustan Lever. Corporate restructuring, largely drove this second wave of M&As. The third wave started about five years ago, driven by consolidation in key sectors like cement and telecommunications. Companies like Bharti Tele-Ventures and Hutch bought smaller competitors to establish a national presence.

What makes the important wave of M&As different from the three previous ones is the involvement of global players. Foreign private equity is coming into Indian companies, like Newbridge's recent investment in Shriram Holdings. Multinational corporations are also entering India. Swiss cement major Holcim's investment in ACC and Oracle's purchase of a 41 per cent stake in i-flex solutions (for $593 million) are good examples.

Meanwhile, Indian companies, sensing attractive opportunities outside the country are also venturing abroad. Tata Steel has bought Singapore-based NatSteel for $486 million. Videocon has bought the colour picture tubes business of Thomson for $290 million. Such global forays have become a possibility because foreign exchange is no longer a scarce commodity. They have also become a necessity because in globalizing industries, only players

with global scale and reach can survive. At the same time, the difficulties involved in making M&As click must not be underestimated. A paradigm shift is likely in the coming years. Friendly deals could give way to aggressive ones. In future, we may see hostile bids and leveraged buyouts. Most M&As so far have been cash deals. With the Sensex crossing 9000, stock deals may become more common. As the appetite for deal making increases, the valuation is also bound to go up. In short, exciting times are ahead.

The term corporate restructuring encompasses three distinct, but related, groups of activities; expansions – including mergers and consolidations, tender offers, joint ventures, and acquisitions; contraction – including sell offs, spin offs, equity carve outs, abandonment of assets, and liquidation; and ownership and control – including the market for corporate control, stock repurchases program, exchange offers and going private (whether by leveraged buyout or other means). Mergers and acquisitions (M&A) and corporate restructuring are a big part of the corporate finance world. One plus one makes three: this equation is the special alchemy of a merger or an acquisition. The key principle behind buying a company is to create shareholder value over and above that ofthe sum of the two companies. Two companies together are more valuable than two separate companies - at least, that's the reasoning behind M&A.

This rationale is particularly alluring to companies when times are tough. Strong companies will act to buy other companies to create a more competitive, cost-efficient company. The companies will come together hoping to gain a greater market share or toachieve greater efficiency. Because of these potential benefits, target companies will often agree to be purchased when they know they cannot survive alone.

5.4 Categories of restructuring

We will briefly look at each of the three major categories of restructuring in the sectionwhich follow as:

Expansions: Expansions include mergers, consolidations, acquisitions and various otheractivities which result in an enlargement of a firm or its scope of operations. There is a lot of ambiguity in the usage of the terms associated with corporate expansions.

A **Merger** involves a combination of two firms such that only one firm survives.

Mergerstend to occur when one firm is significantly larger than the other and the survivor is usually the larger of the two. A Merger can take the form of:

Horizontal merger involves two firms in similar businesses. The combination of two oil companies or two solid waste disposal companies, for example would represent horizontal mergers.

Vertical mergers involves two firms involve in different stages of production of the same end product or related end product.

Conglomerate mergers involve two firms in unrelated business activities.

A **consolidation** involves the creation of an altogether new firm owning the assets of both of the first two firms and neither of the first two survives. This form of combination is most common when the two firms are of approximately equal size.

The **joint ventures**, in which two separate firms pool some of their resources, is another such form that does not ordinarily lead to the dissolution of either firm. Such ventures typically involve only a small portion of the cooperating firms overall businesses and usually have limited lives.

The term **acquisition is** another ambiguous term. At the most general, it means an attempt by one firm, called the acquiring firm to gain a majority interest in another firm called the target firm. The effort to gain control may be a prelude to a subsequent merger to establish a parent subsidiary relationship, to break up the target firm and dispose of its assets or to take the target firm private by a small group of investors. There are a number of strategies that can be employed in corporate acquisitions like friendly takeovers, hostile takeovers etc. The specialist have engineered a number of strategies which often have bizarre nicknames such as shark repellents and poison pills terms which accurately convey the genuine hostility involved. In the same vein, the acquiring firm itself is often described as a raider. One such strategy is to empty a target block repurchases with an accompanying standstill agreement. This combination sometimes describes as greenmail.

Contractions: The second method is Contraction. As the term implies, it results in a smaller firm rather than a larger one. If we ignore the abandonment of assets, occasionally a logical course of action, corporate contraction occurs as the result of disposition of assets. The disposition of assets, sometimes called sell-offs, can take either of three board form:

- **Spin-offs**
- **Divestitures**
- **Carve outs.**

Spin-offs and carve outs create new legal entities while divestitures do not.

Ownership and Control: **The third method** is ownership and control. It has been wrested from the current board, the new management will often embark on a full or partial liquidating strategy involving the sale of assets. The leveraged buyout preserves the integrity of the firm as legal entity but consolidates ownership in the hands of small groups Whether a purchase is considered a merger or an acquisition really depends on whether the purchase is friendly or hostile and how it is announced. In other words, the real difference lies in how the purchase is communicated to and received by the target company's board of directors, employees and shareholders.

5.5 Restructuring Methods

There are several restructuring methods: doing an outright sell-off, doing an equity carve-out, spinning off a unit to existing shareholders or issuing tracking stock. Each has advantages and disadvantages for companies and investors. All of these deals are quite complex.

Sell-Offs: A sell-off, also known as a divestiture, is the outright sale of a company subsidiary (Pham *et al*. 2021). Normally, sell-offs are done because the subsidiary doesn't fit into the parent company's core strategy. The market may be undervaluing the combined businesses due to a lack of synergy between the parent and subsidiary. As a result, management and the board decide that the subsidiary is better off under different ownership.

Besides getting rid of an unwanted subsidiary, sell-offs also raise cash, which can be used to pay off debt. In the late 1980s and early 1990s, corporate raiders would use debt to finance acquisitions. Then, after making a purchase they would sell-off its subsidiaries to raise cash to service the debt. The raiders' method certainly makes sense if the sum of the parts is greater than the whole. When it isn't, deals are unsuccessful.

Equity Carve-outs: More and more companies are using equity carve-outs to boost shareholder value. A parent firm makes a subsidiary public through an initial public offering (IPO) of shares, amounting to a partial sell-off. A new publicly-listed company is created, but the parent keeps a controlling stake in

the newly traded subsidiary.

A carve-out is a strategic avenue a parent firm may take when one of its subsidiaries is growing faster and carrying higher valuations than other businesses owned by the parent. A carve-out generates cash because shares in the subsidiary are sold to the public, but the issue also unlocks the value of the subsidiary unit and enhances the parent's shareholder value.

The new legal entity of a carve-out has a separate board, but in most carve-outs, the parent retains some control. In these cases, some portion of the parent firm's board of directors may be shared. Since the parent has a controlling stake, meaning both firms have common shareholders, the connection between the two will likely be strong. That said, sometimes companies carve-out a subsidiary not because it's doing well, but because it is a burden. Such an intention won't lead to a successful result, especially if a carved-out subsidiary is too loaded with debt, or had trouble even when it was a part of the parent and is lacking an established track record for growing revenues and profits.

Carve-outs can also create unexpected friction between the parent and subsidiary. Problems can arise as managers of the carved-out company must be accountable to their public shareholders as well as the owners of the parent company. This can create divided loyalties.

Spinoffs: A spinoff occurs when a subsidiary becomes an independent entity. The parent firm distributes shares of the subsidiary to its shareholders through a stock dividend. Since this transaction is a dividend distribution, no cash is generated. Thus, spinoffs are unlikely to be used when a firm needs to finance growth or deals. Like the carve-out, the subsidiary becomes a separate legal entity with a distinct management and board.

Like carve-outs, spinoffs are usually about separating a healthy operation. In most cases, spinoffs unlock hidden shareholder value. For the parent company, it sharpens management focus. For the spinoff company, management doesn't have to compete for the parent's attention and capital. Once they are set free, managers can explore new opportunities.

Investors, however, should beware of throw-away subsidiaries the parent created to separate legal liability or to off-load debt. Once spinoff shares are issued to parent company shareholders, some shareholders may be tempted to quickly dump these shares on the market, depressing the share valuation.

Tracking Stock

A tracking stock is a special type of stock issued by a publicly held company to track the value of one segment of that company. The stock allows the different segments of the company to be valued differently by investors. Let's say a slow-growth company trading at a low price-earnings ratio (P/E ratio) happens to have a fast growing business unit. The company might issue a tracking stock so the market can value the new business separately from the old one and at a significantly higher P/E rating. Why would a firm issue a tracking stock rather than spinning-off or carving-out its fast growth business for shareholders? The company retains control over the subsidiary; the two businesses can continue to enjoy synergies and share marketing, administrative support functions, a headquarters and so on. Finally, and most importantly, if the tracking stock climbs in value, the parent company can use the tracking stock it owns to make acquisitions.

Still, shareholders need to remember that tracking stocks are class B, meaning they don't grant shareholders the same voting rights as those of the main stock. Each share of tracking stock may have only a half or a quarter of a vote. In rare cases, holders of tracking stock have no vote at all.

5.6 Mergers and Acquisitions: many ways to value companies

Investors in a company that is aiming to take over another one must determine whether the purchase will be beneficial to them. In order to do so, they must ask themselves how much the company being acquired is really worth.

Naturally, both sides of an M&A deal will have different ideas about the worth of a target company: its seller will tend to value the company at as high of a price as possible, while the buyer will try to get the lowest price that he can.

There are, however, many legitimate ways to value companies. The most common method is to look at comparable companies in an industry, but deal makers employ a variety of other methods and tools when assessing a target company. Here are just a few of them:

Comparative Ratios - The following are two examples of the many comparative metrics on which acquiring companies may base their offers:

Price-Earnings Ratio (P/E Ratio) - With the use of this ratio, an acquiring company makes an offer that is a multiple of the earnings of the target

company. Looking at the P/E for all the stocks within the same industry group will give the acquiring company good guidance for what the target's P/E multiple should be.

Enterprise-Value-to-Sales Ratio (EV/Sales) - With this ratio, the acquiring company makes an offer as a multiple of the revenues, again, while being aware of the price-to-sales ratio of other companies in the industry.

Replacement Cost - In a few cases, acquisitions are based on the cost of replacing the target company. For simplicity's sake, suppose the value of a company is simply the sum of all its equipment and staffing costs. The acquiring company can literally order the target to sell at that price, or it will create a competitor for the same cost. Naturally, it takes a long time to assemble good management, acquire property and get the right equipment. This method of establishing a price certainly wouldn't make much sense in a service industry where the key assets - people and ideas - are hard to value and develop.

Discounted Cash Flow (DCF) - A key valuation tool in M&A, discounted cash flow analysis determines a company's current value according to its estimated future cash flows. Forecasted free cash flows (operating profit + depreciation + amortization of goodwill – capital expenditures – cash taxes - change in working capital) are discounted to a present value using the company's weighted average costs of capital (WACC).

Admittedly, DCF is tricky to get right, but few tools can rival this valuation method.

5.7 Debt restructuring

Debt restructuring is a process that allows a private or public company – or a sovereign entity – facing cash flow problems and financial distress, to reduce and renegotiate its delinquent debts in order to improve or restore liquidity and rehabilitate so that it can continue its operations. A debt restructuring is usually less expensive and a preferable alternative to bankruptcy. The main costs associated with a business debt restructuring

are the time and effort to negotiate with bankers, creditors, vendors and tax authorities. Debt restructurings typically involve a reduction of debt and an extension of payment terms.

5.8 Financial restructuring

Financial Restructuring takes the following forms:

Change in Debt Structure:

Corporate Debt Restructuring (CDR) - Our strong Business relationship with leading banks and financial institutions has helped us in assisting companies to get their debts restructured. Corporate Debt Restructuring (CDR) has evolved as a voluntary and non-statutory arrangement between lenders and borrowers, for timely and orderly restructuring of debts of corporate entities affected by certain internal and external factors.

Timely corrective actions, when the assumptions made at the time the project was conceived and executed do not materialize, will go a long way in preserving the economic value of the project. To the bankers this is a crucial element in credit management. Even for an impaired loan, restoring the health through a structured restructuring exercise is the first step in NPA Management. If this fails, one needs to look for a quick exit option. Legal steps for recovery of dues take time and in the process, the value of assets goes down. For a banker time value of money is critical. Sale of the assets at the best possible price is the ideal way to recycle the funds blocked in NPAs and also clean up the Balance Sheet

One time Settlement (OTS) - We can assist companies in getting their long outstanding debts through ONE TIME SETTLEMENT of RBI

Swapping of Debts - We also assist in getting DEBTS SWAPPED through banks and financial institutions. Swapping of debt can be for cost reduction as well as tenure adjustment.

Change in Capital Base :

1. **Buy Back Shares** - We assist companies in changing their capital base through BUY BACK of SHARES. Buy back of shares is permitted in many parts of the World. Themain reasons for following this route are return of surplus cash to the shareholders, increasing underlying share value, supporting share prices during temporary weakness, and preventing or blocking hostile takeovers. Buy back is also used as a financial strategy by corporates for streamlining their capital structure, swapping equity for debt, as well as for reducing the number of shareholders to reduce the cost for servicing them, etc.

2. **Reduction in Capital** - This occurs when a borrower makes a lump sum payment towards the capital owed on a mortgage. Also known as a partial redemption, it often has a minimum permitted amount and is a process whereby the issued capital of a company is reduced. There are two circumstances in which this might take place. These are:

   i. Where future operations of the company are expected to be on a reduced scale so that a smaller level of finance will be required; and

   ii. Where it has to be accepted that past revenue losses can never be made good and that they amount to a permanent loss of capital

Change in Group Structure:

1. **Merger and De-merger within the Group Companies -**

   i. **Merger** - A legal action resulting in the unification of two or more legal entities. Such an event can be advantageous because of Economies of Scale and also give a competitive edge by synergies derived from the unification

   ii. **De-merger** - The splitting of a company often originally formed as a result of a merger, into two or more separate companies. It gives the existing shareholders shares in both companies

2. **Amalgamation** - The combination of two or more commercial companies into one unit.

5.9 Case Examples of corporate restructuring in India

There were various corporate restructurings in India during the last few years. However, we are dealing with successful corporate restructuring of three Indian companies which immensely enhanced the shareholders' market value and strengthened their competitive edge in recent times. These are Reliance Industries Ltd., Larsen and Toubro Ltd., and Siemens Ltd.

For example, the acquisition, merger, and demerger of Reliance Industries Ltd. like their acquisition of IPCL (5) mergers of Reliance Petrochemicals Ltd., and the recent demergers of four entities like Reliance Communication Ventures Ltd., Reliance Energy Ventures Ltd., Reliance Natural Resources Ventures Ltd., and Reliance Capital Ventures Ltd. which spun off from Reliance Industries Ltd. (RIL), and were perhaps the most prominent restructurings in recent times.

Even the recent demerger of the cement division of Larsen and Toubro Ltd. (L&T), named Ultratech Cement Ltd., seems to be one of the L&Ts grand

strategies to concentrate more on infrastructure, engineering, energy and turnkey businesses. Other kinds of restructuring through structural changes, to improve sales and profit, or all round optimization of products, processes and systems in Multinational like Siemens Ltd. are worthy examples of successful restructuring in Indian industry.

CASE OF RELIANCE INDUSTRIES LIMITED (RIL)

Background

At the age of 16, a young man left his rural Gujarat village for the Arabian Peninsula in 1949. His first job was pumping gas at Yemen. Soon he demonstrated his entrepreneurial spirit and managed to negotiate for people whose insurance claims had been rejected, splitting the settlements he managed to negotiate. He returned to India in 1958 with $3,150 (in those days) and set up a trading company to export spices to Yemen. It was then called Reliance Commercial Corporation. The entrepreneur of this company was Shri Dhirubhai Ambani. By the late 1960s, with 70 employees, Reliance was manufacturing textiles with four wrap-knitting machines. To explore the need of the society, Dhirubhai applied his innovative spirit when most corporate bosses were content to sit behind India's walls of protectionism and rake in profits from obsolete, overpriced goods. For example, to overcome the wholesaler's monopoly of the cloth market, he set up a chain of franchises. Today the Vimal brand of textiles is one the industry's top sellers. At the starting stage, banks often spurned him; hence, he turned to small investors to fund his expansion plans into synthetics and petrochemicals.

Reliance was one of the first Indian companies to go public in 1977. On 27th June 1985, the name of the company was finally changed, from Reliance Textile Industries Ltd. to Reliance Industries Ltd. Then there was no looking back. The company continued to satisfy its shareholders through big bonuses and hefty dividends. When India instituted market reforms in 1991, RIL was perfectly placed; it was lean, with state-of-the-art facilities, and a cadre of capable and competent managers. At this moment RIL was not very concerned about competition from Indian companies. That is why Dhirubhai Ambani once said, "My real competitors are DuPont, Shell and ICI." Hence RIL's next challenge was to meet its international competitors. By the mid-90s, RIL aggressively diversified into telecommunication, power, finance, and transportation.

The Dhirubhai Saga Continued.

The RIL chairman, Dhirubhai Ambani, was listed among "Asia's 50 most powerful peoplefor 1998" by Asia Week Magazine in 1998. In the same year, he was also the first Indianrecipient to get the Wharton School Dean's medal (6). In 1999, the chairman of RIL was again voted as the "Indian Businessman of the Century" by a worldwide multimedia pollconducted between August to October 1999 by Business Baron Magazine.

RIL entered into the telecom segment in the year 2000. The company also submitted open offers to take control of BSES (7) stocks and took over BSES in 2002. It also plannedto merge its finance company with another subsidiary Reliance Petrochemicals Ltd. (RPL). In March 2002, RPL merged with RIL. In the same yea, RIL bagged a 25 percent share of IPCL. On July 6, 2002 the great Reliance patriarch Dhirubhai Ambani passed away.

Mukesh Ambani, elder son of Dhirubhai Ambani, was elected as chairman of RIL on July31st 2002. RIL diversified further into the areas of biotech, life sciences, mining, and insurance.

Ambani Empire Split

RIL, one of India's largest private sectors groups, was split in June 2005 due to differences between two successor brothers. The RIL struggle was not only a clash ofegos between estranged brothers, but it was also about big money in the area of Rs.1000 billion which was not easy to share. Also not easy to understand were the complexities involved in running such an empire with two power centers.

On January 17th '2006, a unique trading and investment era was over. As per the demerger approved by RIL board in August 2005, both brothers, Mukesh and Anil-- headed different businesses and five listed companies emerged as potential investmentopportunities for investors by March 2006. Among the group companies of RIL, RelianceEnergy (earlier name was BSES) and Reliance Capital, were already listed at the exchanges. The remaining four companies were listed by the end of March 2006.

The New Structure

The new RIL structure gave Mukesh complete independent control in the business of oilexploration, refining, petrochemicals, and textile businesses through a standalone entityin RIL along with IPCL. His shares also included

biotech firm Reliance Life Sciences and Trevira, a company in Europe which manufactures polyester fibers. Anil got control over power, communication, and financial businesses through four companies which came under Anil Dhirubhai Ambani Enterprise (ADAE) as part of the Reliance group.

These four companies were named as Reliance Capital Ventures Ltd. (proposed to be merged with another listed company Reliance Capital Ltd.),Reliance Energy Ventures Ltd. (proposed to be merged with existing company Reliance Energy Ltd.), Reliance Communication Ventures Ltd.(these include both Reliance Infocom and Reliance Telecom) and Reliance Natural Resources Ltd. (which includes businesses in gas based energy undertakings).

Outcome of Demerger

After the demerger, share prices of the listed five companies (8) were quoted differently at the Bombay Stock Exchange and National Stock Exchange. Prior to the demerger, RIL's share was traded around Rs 978 per share, but after the demerger the combined demerged share values of five companies came to around Rs. 1235. This is a gain of almost 26 percent for every shareholder.

CASE OF LARSEN AND TOUBRO LIMITED (L&T)

Background

L&T was established by two Danish engineers H. Holck Larsen and S.K.Toubro in 1942. Within a span of fifty years L&T became one of the most respected companies in India (9). The sales turnover of the company during last seven years rose from Rs. 53.88 billion in the year 1996/1997 to Rs. 115.25 billion in the year 2003/2004 (10). The company is a leading manufacturer and engineer in turnkey projects having diversified activities in electrical and electronics; construction projects; cement manufacturing; medical equipment; shipping; earthmoving equipment; heavy engineering and information technology. From the year 2000, the company was planning to restructure some of its business divisions through demerger and consolidation in order to concentrate more on infrastructure and turnkey businesses.

Reasons for L&T's Demerger

L&T was trying to protect itself from a takeover bid by Grasim Industries Ltd. (GIL) a flagship company of Aditya Birla Group, from the year 2001. GIL was trying to take over control in L&T management by purchasing shares of L&T from the open market. The company first acquired 15 percent stake in L&T

and also made an open offer to L&T shareholders to increase its stake. However, it could not get very good response from the existing L& T shareholders.

In this situation, if L&T's demerger plan of cement division had gone through, GIL's stake in the cement business would have gone down to 3.75 percent. At this moment, GIL had already spent over Rs 10 billion in acquiring its L&T stake and was not ready to allow the latter's plan to demerge the cement business. GIL accused L&T that through demerger plan, L&T was trying to retain control of the cement division within itself, without focusing the interest of shareholders. According to GIL, under the L&T demerger plan, L&T shareholders would have only 24 percent stake in the new cement company where individual shareholders would hold very little control in this new entity.

Demerger: The Three Steps

Finally, at the extraordinary general body meeting held on 3rd February 2004, shareholders approved the demerger of L&T's cement division. The name of the demerged entity was made public as UltraTech Cem Co Ltd. (UCL). This extraordinary general body meeting witnessed a lot of heat amongst the shareholders. On two main resolutions, two polls were conducted on the scheme of arrangement, involving the reduction of share capital of residual engineering from Rs. 2.48 billion and demerger of L&T cement division.

The face value of L&T share was also reduced from Rs.10 to Rs 2, awaiting poll results. L&T wanted 51 percent of the shareholder's approval who were present in the meeting and voting of 75 percent of value to go through for demerger. GIL was interested in acquiring the cement division of L&T and was confident that all the above objectives would be comfortably achieved. The proposed open offer of cement division closed after the listing with the new company. With the demerger of the cement business, L&T needed to restructure the equity capital.

In a three step demerger plan, it was decided that in the first phase L&T would spin off the cement business into a new company, UltraTech Cem Co Ltd. (UCL), where L&T would hold 20 percent and the balance of 80 percent would be held by existing shareholders of L&T.

In the second phase, GIL would buy 8.5 percent of UCL from L&T @ Rs. 342.60 per share and make an open offer to other shareholders of another 30 percent at the same price. It would take GIL's stake to 51 percent in UCL, if this offer

was fully subscribed, and on the sale of its stake in UCL, L&T would realize Rs. 3.62 billion.

In the third phase, L&T Employee Welfare Foundation would acquire the GILs 15.3 percent stake in the residual engineering company.

Hence, after the demerger, GIL gave an open offer to UCL shareholders and purchased the shares to cover a 51 percent hold in UCL. Table--2 below, shows in short the sequence of the demerger process in L&T Ltd. Immediately after the acquisition, GIL finally changed the name from UltraTech Cem Co Ltd. to UltraTech Cement Ltd.

Outcome of L&T Demerger

There were two important issues in this demerger. The first important issue was that to protect the interests of both existing and former employees, L&T Employees Welfare Foundation was given a stake in the company. The second issue was how shareholders at large also could benefit from this demerger. During early 2003, L&T's ten-rupee face value share prior to demerger was hovering around Rs. 350/400 per share. After the demerger, for every 100 shares of L&T, shareholders got 50 shares of L&T of Rs. 2 face value each and 40 shares of UCL with face value of Rs. 10 each.

Around April 2004, the entire demerger process was complete. Although initially there were some corrections in the market, later share prices of both L&T and UCL started rising. Within three years shareholders of erstwhile L&T increased their wealth with a growth more than SENSEX or Nifty. In March 2006, the face value of Rs. 2 a share of L&T was quoted between Rs. 2375 to Rs.2616 (11) per share, while of UCL was quoted between Rs. 562.5 to Rs 689 12 per share on the Bombay Stock Exchange. This means shareholders' value went up by more than 100 percent within two years, which was unprecedented in the history of demergers of any company. Financial highlights shown in Table 3 endorse the point as to how this company's restructuring strategy has been implemented successfully.

CASE OF SIEMENS LIMITED

Background

Siemens Engineering and Manufacturing Company of India Limited was incorporated in the year 1956, as a subsidiary of Siemens AG., Germany. The company started manufacturing switchboard products at its Worli Factory,

Mumbai. Thereafter, as the business grew, the company expanded its business into other product segments of power generation, power distribution, and medical engineering products.

By the year 1966, the company had four factories in different parts of the country employing more than 2500 people. In 1990, the name of the company was changed to Siemens India Ltd. In the same year, the company was divided into six products divisionsand formed into strategic business units. In the year 1991, there was further restructuring of business divisions. Again, in the year 1994, the name of the company was further changed to Siemens Ltd. In the same year, product divisions were further sub-divided to achieve operational efficiency. The number of business divisions was increased to ten. However, to be very precise, from the wide range of the above- mentioned businesses--the major business segments of Siemens Ltd were in power, communication, medical solution, industrial automation, and railway and transport systems.

Despite many changes and repeated divisional restructuring, the company could not getthe desired result to counter all-time competition. Then in the year 1996 -97 (13) (18 months period), the company made a loss of almost Rs.1.5 billion for the first time sinceits inception in the Indian business. This situation compelled the Siemens management to go for intense all-round corporate restructuring. The meaning of this corporate restructuring was to give a new structure to rebuild and rearrange the organization.

Manpower Downsizing

As a first step in July 1997, the company introduced a voluntary retirement scheme (VRS) followed by three such schemes till the year 2001 for all its employees in the factories at Worli, Kalwa and Joka, especially for those who were above 40 years of age or had completed 10 years of services. Those who were interested in VRS were paid a maximum lump sum amount of six hundred thousand rupees as compensation and those who were not interested in the VRS scheme were offered alternative jobs in different functions / locations. However, regular dialogues with the employees helped the management to reduce and adjust employees at the Worli, Joka and Kalwa factories.

At the same time, the company faced the new problem of training the remaining employees who were required to do different jobs in new areas

and with new skills.

These downsizing processes on four occasions reduced the employee strength by more than 4500 employees. However, the cost of VRS, relocation, and retraining of around 1000 (out of 4600) employees hit hard on the company's financial result. The company during the financial year 1997-98 made a further loss of Rupees 560 million. With the successes of downsizing, the processes of manpower reorganization had been a commanding task in the organization. The employee strength came down to 3896 in the year 01/02 compared to 8322 in 96/97. These downsizing processes revamped the human resource planning in the organization and removed many operational deficiencies.

Financial Restructuring

From the very inception, the company had engaged a renowned auditing firm, M/s Fergusson & Co. Ltd., to carry out its annual financial audits. However, despite good results year after year, the company fell short of working capital every year. Therefore it had to borrow capital from banks and from other investors at a high interest. At the end of every financial year, after paying the interests to the creditors, the company was short of working capital to run the business.

The company, in the year 1997-98, appointed M/s KPMG Ltd. to look after its financial audit. During the process of preliminary findings, it was observed that a large amount of inventory items were in the stocks, both as finished goods as well as raw materials, which were slow moving for a long time and were continuously audited as stocks, year after year. Similarly, there were some customers who did not pay their dues for long periods of time, on some pretext or another, and were shown as outstanding customers. Hence, the KPMG advised the company to write off the old stocks as well as long outstanding payments from customers.

The decision to write off the old stocks and doubtful dues from customers was agreed upon by the company. These measures added further financial loss during 1997-98.

However, the company could dispose off some obsolete stocks and recover few pending dues from customers at later dates. The revenue generated was added up as surplus to the organization. This one time action of writing off the old / obsolete stocks and doubtful dues from customers helped the

company to stop borrowing from banks and other financial brokers / institutions. The debt /equity ratio of the company in the year 1997-98 was 1.3:1. In the year 2002-03 this figure went down to 0.01:1 (14), which showed how financial restructuring helped the organization to overcome the problem ofworking capital.

Restructuring of Processes and Systems in Different Divisions of Siemens Ltd.

Apart from downsizing the employee strength in some strategic business units and financial restructuring the company, in the year 1997, introduced Time Optimised Processes (TOP). These were similar to the business process re-engineering segments of its business. The processes started optimizing business processes of every function like sales, marketing, manufacturing, service, finance and human resources which were not tuned to productive performance. The uneconomical processes were removed to cut cost and improve the quality of business.

The company went further to look for economic consideration of its capacity utilization in the factories. It was observed that the return on capital investments made in earlier years in different factories was not paying proper dividends as planned during the budget period. Therefore, the company decided to go for outsourcing of products and services in different factories to achieve operational efficiency through a process of costreduction. At the same time, the company also introduced stringent measures to followthe ISO 9000 quality system along with resurgence and renewal in all its divisions.

Medical Solutions Division (MSD)

The manufacturing of medical products in Siemens India commenced in the year 1957 at the premises of Worli Works, in Mumbai. The process of restructuring started in the Medical solutions division in early 1993 with the objective of manufacturing high-end medical solutions products for Siemens AG to cater to the South East Asian market. In 1994, a new manufacturing site was selected in the state of Goa, which had the cost advantage as sales taxes were exempted for the first five years for the new companies which set up industries there.

At the same time, the central government also exempted corporate taxes for these industries located in Goa for a period of five years. However, this project did not give any economic advantage to the company, as required by its

principal in Germany. The company subsequently decided to restructure the local manufacturing in phases over the next three years to counter the increased manufacturing cost at its Worli factory in Mumbai. In the year 1997, the Medical Solutions Division of the company had manpower of 375 people in the factories which included 340 employees at Worli and 35 employees at Goa, including all officers.

In mid-1997, the company decided to procure the low-end products from outside vendors who had the requisite technology and could spare their machines and equipment for manufacturing these products. The idea was formulated to close down the Worli factory. However, the company continued manufacturing the core technology products like oil immersed multi-pulse X-ray generators at its Goa factory. In mid 1997, despite a lot of opposition from the employees at Worli for relocation, the company discussed the issue with workers and staff unions and offered transfers to relocate people in different departments / divisions of the organization.

With the all-round success of VRS, Siemens was able to transfer 140 employees to other locations and remaining took voluntary retirement from the division. With this action of the management, the employee strength in the Worli factory became zero, while at Goa, it was only 35. By the year 1999, the company was running the business of low-end products at one factory at Goa with just 35 people producing the same sales turnover of rupees 250 million which was earlier produced in the year 1996 at Worli with 340 people. With this restructuring, the low-end medical device products of the company became competitive and the company could regain its strength through a higher margin. Table 4 exhibits the sequence of strategic changes in details that took place in the medical solutions division.

Low Voltage Distribution Systems Division (LVDSD)

With the increased demand of power in the country due to industrialization immediately after the second five years plan, the company expanded the manufacturing of switchboard products. In the year 1960, the company set up a workshop at Hide Road, Kolkata, for manufacturing and repair of power distribution equipment for the eastern region. In the year 1980, with the further demand of energy equipment, this factory was relocated to a new plant at Joka, just a few kilometers away from Kolkata.

This division was then considered as a part of switchboard division. In the year

1999, thename of the switchboard division was changed to Energy Division. When the manufacturing facility at Joka was transformed into a sub division, it was named Low Voltage Distribution Systems Division. (15)

However, in the year 2000-01, the low voltage industry was suffering from excessive manufacturing capacity due to the presence of a large number of players and dwindling demands as a result of depressed market conditions. The overall market for Low Voltage Distribution Systems Division remained stagnant and was characterized by intense competition, putting the price under tremendous pressure. As a consequence, the Lower Voltage Distribution business posted a 40 percent drop in both turnover and order value. In its endeavor to make operations viable, the division proposed to introduce several measures; this included an offer of alternative jobs to its workers at the Siemens Metering, a plant in the neighborhood. This process of implementation made some delays resulting in the unit making even more production losses, thus affecting the result. At the end of the year 2001, the company closed down the Joka factory and adjusted its employees to Siemens Metering Ltd. After the closure of thisfactory, the division started procuring the low voltage products from the switchboard factory, thus making full-scale utilization of free capacity at its Kalwa factory.

The twin initiatives of closing down the high cost manufacturing operation at Joka andimplementing a completely new business process of deploying a lean cost structure whilst maintaining high quality standards supported the division's turnaround. The entire business restructuring was achieved within a time period of less than two years.

As a result of focused market approach, the division achieved an increase in the market share. Customer loyalty and satisfaction was evidently demonstrated as it received several orders. The division developed new products. The concentrated focus on its spares and service business helped it record a four-fold increase in turnover in this line of business over the last three years. To further augment its service network, the division entered into a franchising arrangement with a Kolkata-based company, which utilizes the services of former employees of Joka works. Table 5 below gives a short detail of strategic changes in Low Voltage Distribution Systems Division.

Personnel Division

The process of renewal and resurgence was not confined only to factories of

a few divisions, but also to the other areas of corporate systems. Being a part of corporate systems, the personnel division handled the human resource functions in the company. During the year 1994, the personnel division for the first time introduced an Enterprise Resource Planning (ERP) system, People-soft, to upkeep the employee data, and created an information highway for its concerned executives and managers. Then in the year 1997-98, the personnel division of Siemens Ltd. achieved a milestone for successful downsizing and implementation of corporate goals and objectives by retraining and relocating people for the emergent needs of the organization.

Apart from downsizing the manpower in other divisions, the personnel division also initiated VRS and relocations of some of its own employees and managers and outsourced some of the human resource processes and activities from outside parties who had much more experience in this field. For example, the company outsourced the entire process of employee benefit schemes like handling of Provident Fund (PF) and gratuity payments to an outside agency, M/s India Life Pension Services, with headquarters at Bangalore. This outside agency maintained all accounts of PF, gratuity and other pension schemes, and advised the personnel division of Siemens to make necessary payments after the retirement or separation of employees. The personnel division also outsourced the processes of salary payment to one of its affiliates, Siemens Information Systems Ltd. (SISL), which developed a software package of such services.

Then in the year 2000, in order to systemize its operations in personnel, the division opted for the ISO 9000 quality system, to regulate all the processes of personnel function and became one of the very few companies in the country holding independent ISO 9000 certification for its personnel function.

In the year 2005, the company introduced a new HR initiative on performance management to be known as EDGE (16). EDGE stands for Employee Dialogue for Growth and Entrepreneurship. EDGE was developed looking at the overall growth and development of employees from a holistic and long-term perspective. In the same year, as per companies shared service initiative, HR processes across all Siemens' entities were now streamlined and aligned with Siemens BPO global processes under one organization.

Outcome of Restructuring

The overall restructuring in Siemens started showing results after a few years

of operations resulting in all-round satisfaction of stakeholders. The financial highlights beginning from 1998-99 in Table 6 exhibits the unique results of corporate restructuring. The share price of Rs. 10 (face value) which was hovering on the Bombay Stock Exchange (BSE) or National Stock Exchange (NSE) around Rs. 140 / 150 in 1997 rose to Rs 5500 / 5600 in March 2006. As per ET 500 (Feb.'06), Siemens ranks one of top ten performing companies in India and a leader among 49 listed multinational company at BSE / NSE. While in the same footing Siemens AG stock price on 30th Sept 2005 was quoted 64.10 [euro] compared to 41.89 [euro] in Sept. 2001.

Initially, restructuring processes followed by Siemens resulted in some amount of uncertainty in the minds of the employees. However, after the positive results of restructuring started pouring in, the cloud of uncertainty cleared. These were the moments when Siemens took care of handling the remaining productive employees.

The company which had losses for the first time since its inception decided to undertake a cleansing operation by downsizing manpower, optimizing all processes, outsourcing products and services and keeping the quality standards ahead of all future actions.

These also included maintaining high employee morale at this juncture of productive changes.

Even when there was a need for financial restructuring, the company did not spare much time to take action. Continuous shortage of working capital forced the company to change auditing systems. Initially, this action made incurred losses for the company but it helped the management to reduce heavy interest payments in the long run. Above all, this course of operational restructuring finally helped the organization to go into the black. From the year 2000-01 onwards, the company did make a turnaround and started earning regular profits, resulted from the processes of progressive restructuring which are still continuing in the organization.

Points for Discussion

From the above cases of restructuring, the point may arise that, prior to restructuring; none of these companies were managed properly. They were huge in size; the company management could not select the right strategic options to push their businesses ahead of other priorities. Or, even, the core competency levels had reached to its saturation points when these business

units were no longer viable and therefore restructuring was the only option to avoid losses or stagnation. The above arguments may be well suited to L&T Ltd. and Siemens where these companies had enough strength in power, infrastructure, medical equipment and Turnkey projects. L&T had its weaknesses in the cement business and Siemens had its advanced technologies but with huge manpower and multiple operations which were not cost competitive. All these forced the above companies to go for all-round restructuring. L&T took a wise decision and demerged its cement business.

Siemens Ltd. took a cultural shift and made an all-round resurgence and renewal in its business through corporate restructuring. Even the parent company Siemens AG., despite having vast sales regions as shown in Table 7 and business areas as shown in Table 8, could not do that well compared to its counterpart in Siemens India Ltd., as can be seen in Table 9.

All these studies finally reveal how progressive organizational restructuring can be incorporated in an organization. When any company makes losses or is likely to face odds in business, all-round pro-active changes are needed for the survival of that organization. For Siemens, in implementing the processes of manpower downsizing in different divisions, the company started making changes in a progressive manner.

But for RIL, the recent demerger was the outcome of a family feud between two brothers, which lead to the demerger of four strategic business divisions. This was more of a balancing act between two brothers to gain control in their areas of business.

However, this demerger has definitely brought some transparency in the working of RIL which one may say was more complex prior to this arrangement.

However, all the above process of restructuring has added shareholders market value and can be construed as successful restructuring from the point of competitive advantage. Such innovative restructuring should always be made in the strategic plans for the survival, growth, and remain competitive in the market.

Chapter 6: Financial Forcasting

6.1 An introduction

Financial Forecasting describes the process by which firms think about and prepare for the future. The forecasting process provides the means for a firm to express its goals and priorities and to ensure that they are internally consistent. It also assists the firm in identifying the asset requirements and needs for external financing. *For example*, the principal driver of the forecasting process is generally the sales forecast. Since most Balance Sheet and Income Statement accounts are related to sales, the forecasting process can help the firm assess the increase in Current and Fixed Assets which will be needed to support the forecasted sales level. Similarly, the external financing which will be needed to pay for the forecasted increase in assets can be determined.

Firms also have goals related to Capital Structure (the mix of debt and equity used to finance the firm's assets), Dividend Policy, and Working Capital Management. Therefore, the forecasting process allows the firm to determine if its forecasted sales growth rate is consistent with its desired Capital Structure and Dividend Policy.

6.2 Methods of financial forecasting

- Percentage of Sales Method
- External Financing Needed (EFN) (Davidson III, 2018)
- Financial Forecasting Equations

A. Percentage of Sales Method

The Percentage of Sales Method is a Financial Forecasting approach which is based on the premise that most Balance Sheet and Income Statement Accounts vary with sales. Therefore, the key driver of this method is the Sales Forecast and based upon this, Pro- Forma Financial Statements (*i.e.*, forecasted) can be constructed and the firms needs for external financing can be identified. The calculations illustrated on this page will refer to the Balance Sheet and Income Statement which follow. The forecasted Sales growth rate in this example is 25%.

Balance Sheet (Rs. in Millions)

Assets	2000-2001	Liabilities and Owners' Equity	2000-2001
Current Assets		**Current Liabilities**	
Cash	200	Accounts Payable	400
Accounts Receivable	400	Notes Payable	400
Inventory	600	***Total Current Liabilities***	800
Total Current Assets	1200	**Long-Term Liabilities**	
		Long-Term Debt	500
Fixed Assets		Total Long-Term Liabilities	500
Net Fixed Assets	800	**Owners' Equity**	
		Common Stock (Re1 Par)	300
		Retained Earnings	400
		Total Owners' Equity	700
Total Assets	2000	***Total Liab. and Owners' Equity***	2000

Income Statement (Rs. in Millions)

	2000-2001
Sales	1200
Cost of Goods Sold	900
Taxable Income	300
Taxes	90
Net Income	210
Dividends	70
Addition to Retained Earnings	140

Percentages of Sales

The first step is to express the Balance Sheet and Income Statement accounts which vary directly with Sales as percentages of Sales. This is done by dividing the balance for these accounts for the current year (2000-2001) by sales revenue for the current year. The Balance Sheet accounts which generally vary closely with Sales are Cash, Accounts Receivable, Inventory, and Accounts Payable. Fixed Assets are also often tied closely to Sales, unless there is excess capacity. (The issue of excess capacity will be addressed in External Financing Needed section.) For this example, we will assume that Fixed Assets are currently at full capacity and, thus, will vary directly will sales.

Retained Earnings on the Balance Sheet represent the cumulative total of the

firm's earnings which have been reinvested in the firm. Thus, the change in this account is linked to Sales; however, the link comes from relationship between Sales growth and Earnings. The Notes Payable, Long-Term Debt, and Common Stock accounts do not vary automatically with Sales. The changes in these accounts depend upon how the firm chooses to raise the funds needed to support the forecasted growth in Sales.

On the Income Statement, Costs are expressed as a percentage of Sales. Since we are assuming that all costs remain at a fixed percentage of Sales, Net Income can be expressed as a percentage of Sales. This indicates the Profit Margin. Taxes are expressed as a percentage of Taxable Income (to determine the tax rate). Dividends and Addition to Retained Earnings are expressed as a percentage of Net Income to determine the Payout and Retention Ratios respectively.

Percentage of Sales Calculations

The examples in this box illustrate the calculations which were used to determine the percentages provided in the following Balance Sheet and Income Statement.

Cash	Cash/Sales = 200/1200 = .1667 = 16.67%
Inventory	Inventory/Sales = 600/1200 = .5 = 50%
Accounts Payable	(Accounts Payable)/Sales = 400/1200 = .3333 = 33.33%
Costs	Costs/Sales = 900/1200 = .75 = 75%
Taxes	Taxes/(Taxable Income) = 90/300 = .3 = 30%
Net Income	(Net Income)/Sales = 210/1200 = .175 = 17.5%
Dividends	Dividends/(Net Income) = 70/210 = .3333 = 33.33%

Balance Sheet (Rs in Millions)					
Assets	**2000-2001**	**%**	**Liabilitiesand Owners' Equity**	**2000-2001**	**%**
Current Assets			**Current Liabilities**		
Cash	200	16.67%	Accounts Payable	400	33.33%
Accounts Receivable	400	33.33%	Notes Payable	400	N/A
Inventory	600	50.00%	***Total Current Liabilities***	800	
Total CurrentAssets	1200		**Long-TermLiabilities**		
			Long-Term	500	N/A
			Debt		
Fixed Assets			Total Long-Term Liabilities	500	
Net Fixed Assests	800	66.67%	Owners' Equity		
			Common Stock ($1 Par)	300	N/A
			Retained Earnings	400	N/A*
			Total Owners' Equity	700	
Total Assets	2000		Total Liab. and Owners' Equity	2000	

Income Statement (Rs inMillions)

	2000-2001	**%**
Sales	1200	
Cost of Goods Sold	900	75%
Taxable Income	300	25%
Taxes	90	30%*
Net Income	210	17.5%
Dividends	70	33.33%*
Addition to RetainedEarnings	140	66.67%*

Percentages of Sales

The first step is to express the Balance Sheet and Income Statement accounts which vary directly with Sales as percentages of Sales. This is done by dividing the balance for these accounts for the current year (2000-2001) by sales revenue for the current year. The Balance Sheet accounts which generally vary closely with Sales are Cash, Accounts Receivable, Inventory, and Accounts Payable. Fixed Assets are also often tied closely to Sales, unless there is excess capacity. (The issue of excess capacity will be addressed in External Financing Needed section.) For this example, we will assume that Fixed Assets are currently at full capacity and, thus, will vary directly will sales.

Retained Earnings on the Balance Sheet represent the cumulative total of the firm's earnings which have been reinvested in the firm. Thus, the change in this account is linked to Sales; however, the link comes from relationship between Sales growth and Earnings. The Notes Payable, Long-Term Debt, and Common Stock accounts do not vary automatically with Sales. The changes in these accounts depend upon how the firm chooses to raise the funds needed to support the forecasted growth in Sales.

On the Income Statement, Costs are expressed as a percentage of Sales. Since we are assuming that all costs remain at a fixed percentage of Sales, Net Income can be expressed as a percentage of Sales. This indicates the Profit Margin. Taxes are expressed as a percentage of Taxable Income (to determine the tax rate). Dividends and Addition to Retained Earnings are expressed as a percentage of Net Income to determine the Payout and Retention Ratios respectively.

Percentage of Sales Calculations	
The examples in this box illustrate the calculations which were used to determine the percentages provided in the following Balance Sheet and Income Statement.	
Cash	Cash/Sales = 200/1200 = .1667 = 16.67%
Inventory	Inventory/Sales = 600/1200 = .5 = 50%
Accounts Payable	(Accounts Payable)/Sales = 400/1200 = .3333 = 33.33%
Costs	Costs/Sales = 900/1200 = .75 = 75%
Taxes	Taxes/(Taxable Income) = 90/300 = .3 = 30%
Net Income	(Net Income)/Sales = 210/1200 = .175 = 17.5%
Dividends	Dividends/(Net Income) = 70/210 = .3333 = 33.33%

Balance Sheet (Rs in Millions)					
Assets	**2000-2001**	**%**	**Liabilities and Owners' Equity**	**2000-2001**	**%**
Current Assets			**Current Liabilities**		
Cash	200	16.67%	Accounts Payable	400	33.33%
Accounts Receivable	400	33.33%	Notes Payable	400	N/A
Inventory	600	50.00%	***Total Current Liabilities***	800	
Total CurrentAssets	1200		**Long-Term Liabilities**		
			Long-Term Debt	500	N/A
Fixed Assets			Total Long- Term Liabilities	500	
Net Fixed Assests	800	66.67%	Owners' Equity		
			Common Stock ($1 Par)	300	N/A
			Retained Earnings	400	N/A*
			Total Owners' Equity	700	
Total Assets	2000		Total Liab. and Owners' Equity	2000	

Income Statement (Rs inMillions)		
	2000 - 2001	**%**
Sales	1200	
Cost of Goods Sold	900	75%
Taxable Income	300	25%
Taxes	90	30%*
Net Income	210	17.5%
Dividends	70	33.33%*
Addition to RetainedEarnings	140	66.67%*

Partial Pro-Forma

The next step is to construct the Partial Pro-forma Financial Statements. First, determinethe forecasted Sales level. This is done my multiplying Sales for the current year (2000- 2001) by one plus the forecasted growth rate in Sales.

$S_1 = S_0 (1 + g) = 1200(1 + .25) = 1500$

Where

- S_1 = the forecasted Sales level,
- S_0 = the current Sales level, and
- g = the forecasted growth rate in Sales.

Once the forecasts Sales level has been determined, the Balance Sheet and Income Statement accounts which vary directly with Sales can be determined by multiplying the percentages by the Sales forecast. The accounts which do not vary directly with Sales are simply transferred to the Partial Pro-Forma Financial Statements at their current levels.

Retained Earnings on the Balance Sheet are the one item whose amount is determined using a slightly different procedure. The Partial Pro-Forma balance for Retained Earnings equals Retained Earnings in the current year plus the forecasted Addition to Retained Earnings from the Partial Pro-Forma Income Statement. The balances for summary accounts, such as Total Current Assets and Total Current Liabilities, are determined by summing their constituent accounts.

Partial Pro-Forma Calculations

The examples in this box illustrate the calculations which were used to derive the following Partial Pro-Forma Balance Sheet and Income Statement.

Cash	(Cash%)(Sales Forecast) = (16.67%)(1500) = 250
Inventory	(Inventory%)(Sales Forecast) = 50%(1500) = 750
Costs	(Costs%)(Sales Forecast) = 75%(1500) = 1200
Addition to Retained Earnings	(Addition to Retained Earnings%) (Net Income Forecast) = 66.67%(262.5) = 175
Retained Earnings (Balance Sheet)	=Retained Earnings + Addition to RetainedEarnings = 400 + 175

Balance Sheet (Rs. in Millions)					
Assets	**2000-2001**	**2001-2002**	**Liabilities and Owners'Equity**	**2000-2001**	**2001-2002**
Current Assets			**Current Liabilities**		
Cash	200	250	AccountsPayable	400	500
Accounts Receivable	400	500	Notes Payable	400	400
Inventory	600	750	***Total Current Liabilities***	800	900
Total Current Assets	1200	1500	**Long-Term Liabilities**		
			Long-Term Debt	500	500
Fixed Assets			Total Long-Term Liabilities	500	500
Net Fixed Assests	800	1000	**Owners' Equity**		
			Common Stock (Re 1Par)	300	300
			RetainedEarnings	400	575
			Total Owners' Equity	700	875
Total Assets	2000	2500	Total Liab. and Owners' Equity	2000	2275

Income Statement (Rs. in Millions)		
	2000-2001	**2001-2002**
Sales	1200	1500
Cost of Goods Sold	900	1125
Taxable Income	300	375
Taxes	90	112.5
Net Income	210	262.5
Dividends	70	87.5
Addition toRetained Earnings	140	175

B. External Financing Needed (EFN)

The External Financing Needed (EFN) can be determined from the Partial Pro-Forma Balance Sheet. It is simply equal to the difference between Partial Pro-

Forma Total Assets and Partial Pro-Forma Total Liabilities and Owners' Equity.

EFN = 2500 - 2275 = 225

Pro-Forma Financial Statements

The final step is to determine how the EFN is to be raised. Firms can choose to raise the EFN by borrowing on short-term basis (Notes Payable), borrowing on a long-term basis (Long-Term Debt), issuing equity (Common Stock), or some combination of the above. The chosen method is called the Plug.

In this example we shall assume that the EFN is to be raised through long-term borrowing. Thus the plug is Long-Term Debt. To determine the Pro-Forma Financial Statements simply increase Long-Term Debt by the EFN of Rs. 225 determined in the previous step.

Balance Sheet (Rs in Millions)					
Assets	**2000-2001**	**2001-2002**	**Liabilities and Owners'Equity**	**2000-2001**	**2001-2002**
Current Assets			**Current Liabilities**		
Cash	200	250	Accounts Payable	400	500
Accounts Receivable	400	500	Notes Payable	400	400
Inventory	600	750	***Total Current Liabilities***	800	900
Total Current Assets	1200	1500	**Long-Term Liabilities**		
			Long-Term Debt	500	500
Fixed Assets			Total Long-Term Liabilities	725	725
Net Fixed Assets	800	1000	**Owners' Equity**		
			Common Stock (Re 1Par)	300	300
			RetainedEarnings	400	575
			Total Owners' Equity	700	875
Total Assets	2000	2500	Total Liab. and Owners' Equity	2000	2275

Income Statement (Rs. inMillions)		
	2000-2001	**2001-2002**
Sales	1200	1500
Cost of Goods Sold	900	1125
Taxable Income	300	375
Taxes	90	112.5
Net Income	210	262.5
Dividends	70	87.5
Addition toRetained Earnings	140	175

C. *Financial Forecasting Equations*

Forecasted Sales $S_1 = S_0(1 + g)$

Full Capacity Sales

$$S_{FC} = \frac{S_0}{\%\ \text{of Capacity}}$$

External Financing Needed ($S_1 < S_{FC}$)

$$EFN = \frac{A_0^*}{S_0}(S_1 - S_0) - \frac{L_0^*}{S_0}(S_1 - S_0) - (PM)(S_1)(b)$$

External Financing Needed ($S_1 > S_{FC}$)

$$EFN_1 = \frac{TCA_0}{S_0}(S_{FC} - S_0) - \frac{L_0^*}{S_0}(S_{FC} - S_0) - (PM)(S_{FC})(b)$$

$$EFN_2 = \left(\frac{TCA_0}{S_0} + \frac{FA_0}{S_{FC}}\right)(S_1 - S_{FC}) - \frac{L_0^*}{S_0}(S_1 - S_{FC}) - (PM)(S_1 - S_{FC})(b)$$

$$EFN = EFN_1 + EFN_2$$

6.3 Understanding Financial Forecasting in Five Easy Steps

Step One: Discover the Needs of Your Business a financial forecast is vital to the success of any organization as it will influence the planning stages and decision making within your business. In order to understand the needs of your business, there are some questions you need to ask of yourself such as, what future decisions might your forecast change or impact? Who will be affected by these decisions? How much detail should you provide in your forecast and what tools will help others understand the data? What time frame should your financial forecast report cover: weeks, months, quarters or even years? What methods will be used to ensure

accuracy, and what margin of error will be acceptable? Finally, and probably the most important, what would be the impact upon your business due to under or overcasting in your report.

Step Two: Getting Key Data for the Forecast Knowing what data you need to gather and how many years you should go back is essential to creating a clear and accurate picture of your business's financial history. If you are only going to estimate a short distance in the future, less data can be used, however the general rule is to have at least two to five years of historical data for a proper forecast. You should enlist the assistance of all data sources at your disposal in order to create the most in-depth data sets, including spreadsheets, databases from various departments, multiple healthcare data systems and enterprise data warehouse, if available, should be used. The more areas you gather your resources from, the more variations in behavior within the organization can be used to help you paint a full picture of the data at hand.

Step Three: Design a Forecast Model to Suit Your Needs You will now need to decide what type of forecasting model to use based upon the unique contributing factors of historical data, business need and other influencing factors that you have established up to this point. The model you choose is essential to your final presentation because the technique or algorithm that you ultimately use will help to support and determine your projections. The three major forecasting categories that you should focus on and deliver are cause-and-effect, judgment and time series. In order to choose the best model for your particular organization, it may be a good idea to consult with an expert for advice on which type to use.

Step Four: Assess Your Results. You should utilize the most recent time period from your gathered historical data to create the model of your financial forecast. The accuracy of your overall forecast model should be measured using the gathered statistical functions.

Step Five: Assign the Data to the Model By the time you plug in all the data and create a forecast, you should have a complete picture to share with everyone concerned in a way that they will be able to use

effectively. Ideally, you should be able to tailor your financial forecast for each business area within your organization and re-package it appropriately for each user's needs.

6.4 Financial Planning

Financial planning is the process of determining future action on the formation and use of financial resources. The purpose of financial planning is ensuring the reproduction process as appropriate in terms of volume and structure of financial resources. The following types of plans:

1. ***Strategic plans,*** i.e. plans for general business development. In the financial aspect of these plans one defines the most important financial ratios and proportions of reproduction, characterized by investment strategies and opportunities for reinvestment and savings. Strategic plans define the scope and structure of the financial resources necessary for the functioning of the enterprise. Current plans are developed on the base of the strategic ones by means of their specification. If the strategic plan provides an indicative list of financial resources, their extent and direction, than the mutual agreement of each type of attachment with their sources of funding is carried out in the network of the ongoing planning, the effectiveness of each possible source of funding is studied, and financial evaluation of the major activities of the enterprise and the ways of obtaining income is carried out.

2. ***Operational plans***, i.e. short-term tactical plans that are directly related to the achievement of the company (production plan, plan of purchasing raw materials, etc.). Any action plan should be accompanied by an estimate of expenditures – budget formulation, which is a quantitative embodiment of the plan, describing the income and expenses for a specific time and resource requirements to achieve a given plan targets. The budget is created to perform the proposed action that defines its role as a basis for monitoring and evaluating the performance of the

company.

6.5 The difference of financial forecasting from financial planning

The difference of financial forecasting from financial planning is that in predicting the estimated potential future financial implications of decisions and external factors, and the planning of fixed financial performance, which the company aspires to achieve in future. Financial prediction is the basis for financial planning at the plant (i.e. of strategic, current and operational plans) and financial budgeting (i.e., an overall financialand operational budget). The starting point of financial forecasting is the forecast of sales and the corresponding costs; endpoint and the target – calculation of the external financing requirements.

Chapter 7 : Microfinance

7.1 INTRODUCTION

Microfinance is a source of financial services for entrepreneurs and small businesses lacking access to banking and related services **(Mayakkannan, 2020).** The two mainmechanisms for the delivery of financial services to such clients are: (1) relationship- based banking for individual entrepreneurs and small businesses; and (2) group-based models, where several entrepreneurs come together to apply for loans and other services as a group. In some regions, for example Southern Africa, microfinance is used to describe the supply of financial services to low-income employees, which is closer to the retail finance model prevalent in mainstream banking.

Microfinance typically covers these three important aspects:

1. **Micro Loans:**

These loans are offered to the borrowers without any collateral. The main key objective of providing micro loans is to make the borrowers outgrow smaller loans and make them ready for conventional bank loans. Hence, the borrower is not bound to pledge their asset as a security for repayment of the loan. This results in a soothing and non- stressful life, making the overall loan repayment rate better than conventional loans.

2. **Micro Savings:**

Micro Savings Accounts let the entrepreneurs open and operate savings accounts without any average minimum balance requirement. This helps the entrepreneurs form an interest in investment and learn financial discipline. Since the borrowers do not have to keep the minimum balance in the savings account, these funds are further invested intheir business, ensuring they make higher returns.

3. **Micro Insurance:**

Micro Insurance Plans offer insurance coverage to the borrowers of micro loans at affordable premiums. It ensures that the poor people are financially protected against any mishap in the future, such as accidents, chronic diseases, etc. It covers all the possible risks that underprivileged people across the globe might have to face.

7.2 OBJECTIVES

Microfinance is the financial services to low-income people. It refers to a movement that envisions a world where low-income households have permanent access to high- quality and affordable financial services to finance income-producing activities, build assets, stabilize consumption, and protect against risks. Initially the term was closely associated with microcredit—very small loans to unsalaried borrowers with little or no collateral—but the term has since evolved to include a range of financial products, such as savings, insurance, payments, and remittances.

Microfinance institutions and other financial service providers have worked over the past decades to develop products and delivery methods to meet the diverse financial needs of low-income people. For example, unlike other forms of lending, microcredit loans use methodologies such as group lending and liability, pre-loan savings requirements, and the gradually increase in loan sizes to evaluate clients' creditworthiness. Microfinance providers today continue to improve their understanding of the financial needs of their target clients and tailor their products and methodologies accordingly.

In the earlier days the service of the banks and the financial intuitions are exclusively for those people who are financially strong and have enough money. However a person from the weaker section of economy was unable to avail these services. There comes the concept of the microfinance. Where person with low income, if want to come to the main stream of economy and wants to set some scale industry or any manufacturing industry can relies their dream. The microfinance is exclusively designed for this purpose. In addition to that the microfinance also provides other basic financial services such savings, money transfer and insurance for poor people and weaker section of economy.

7.3 MICROFINANCE: CONCEPT AND MEANING

Micro-financing is not a new concept. Small microcredit operations have existed sincethe mid-1700s. Although most modern microfinance institutions operate in developing countries, the rate of payment default for loans is surprisingly low - more than 90% of

loans are repaid. Like conventional banking operations, microfinance institutions must charge their lenders interests on loans. While these interest rates are generally lower than those offered by normal banks, some opponents of this concept condemn microfinance operations for making profits off of the poor.

The World Bank estimates that there are more than 500 million people who have directly or indirectly benefited from microfinance-related operations. One of the realities of living in poverty is that income can be irregular and undependable. People living in poverty need to access a wide range of financial products and services that are tailored to their circumstances. Financial services can help people build assets through savings or financing income-generating activities, and can make it easier for them to manage shocks, such as medical emergencies, death, theft, or natural disasters. Research captured in Portfolios of the Poor shows that, despite many hurdles, even people surviving on US$2 a day strive to save, get credit, take out insurance, and make payments and transfers using whatever means they can.

The problem remains that low-income people pay high costs and sometimes rely on insecure, unpredictable, and unscrupulous options to access basic financial products and services, which is why the financial inclusion movement is striving to encourage the delivery of a full range of financial products at fair prices and without the risks poor people face today.

Microfinance refers to an array of financial services, including loans, savings and insurance, available to poor entrepreneurs and small business owners who have no collateral and wouldn't otherwise qualify for a standard bank loan. Most often, microloans are given to those living in still-developing countries who are working in a variety of different trades, including carpentry, fishing and transportation.

Microloans typically are not more than several hundred dollars. Examples of uses include money for tools to start work in construction, or makeup and other supplies needed to become a cosmetologist. Because they are the ones that commonly use their profits to provide for their families with things like food, clothing, shelter and education, women currently comprise roughly two-thirds of all microfinance clients. The goal of microfinancing is to provide individuals with money to invest in themselves or their business to help get them out of poverty. When providing loans, microfinancing institutions do not

require collateral, but do insist that the loan is repaid within six months to a year.

7.4 PROCESS OF MICROFINANCING

Typical microfinance clients have low incomes and are often self-employed in the informal economy, conditions that together typically deny them access to banks and otherformal financial institutions. They commonly run small stores or street stalls, create and sell items they make in their homes, and in rural areas, microfinance clients may be

small-scale farmers and those who process or trade crops and goods. Microfinance clientsare often just below or above the poverty line, commonly defined as earnings of US$1.25a day, and women constitute a majority of borrowers. Over the past decades, financial institutions have been developing a range of products to meet the diverse needs of this broad and underserved market.

Poor people need many kinds of financial products and services and there is a growing range of organizations working to reach them with savings, insurance, transfers, and credit services. In addition to traditional operators, such as microfinance institutions, credit unions, cooperatives, and banks, other entities, including mobile network operators,are using technology to develop new delivery methods to bring these services to the poor,sometimes in partnership with existing financial institutions.

Microfinance institutions (MFIs) usually send a representative to visit the client as part ofthis process, making the process even more challenging and costly in remote or sparsely populated areas. Once a loan is approved, MFIs often send loan officers to disburse loans and collect payments in person, which also adds significant expense when compared withthe way traditional banks operate. MFIs have to charge rates that are higher than normal banking rates to cover their costs and keep the service available.

Typically, microfinance repayments are broken into weekly instalments. The structure of weekly instalments channels the small sums earned by households into steady payments to the bank. In essence, the microfinance institution is not lending against an investment

project (especially since investments won't typically start generating revenue until long after loan repayments have started) as much as it is lending against expected household cash flows. In practice, microfinance instalments are paid from a combination of wage income, self-employment income and whatever other money can be put together by households.

The loan repayment process continues according to a clear plan, with individual payments small enough to minimize the drain on household budgets. The weekly schedule of communal meetings with bank employees also serves to keep financial obligations salient for customers. Note that this structure gives poor families the functional equivalent of a credit card or instalment plan for making important purchases like a new roof or medicine.

The work of Rutherford, Wright and others has caused practitioners to reconsider a key aspect of the microcredit paradigm: that poor people get out of poverty by borrowing, building microenterprises and increasing their income. The new paradigm places more attention on the efforts of poor people to reduce their much vulnerability by keeping more of what they earn and building up their assets. While they need loans, they may find it as useful to borrow for consumption as for microenterprise. A safe, flexible place to save money and withdraw it when needed is also essential for managing household and family risk.

7.5 FEATURES OF MICROFINANCING

a. Microfinancing produces many benefits for poverty stricken, or low-income households. One of the benefits is that it is very accessible. Banks today simply won't extend loans to those with little to no assets, and generally don't engage in small size loans typically associated with microfinancing. Through microfinancing small loans are produced and accessible.

b. Microfinancing is based on the philosophy that even small amounts of credit can help end the cycle of poverty. Another benefit produced from the microfinancing initiative is that it presents opportunities, such as extending education and jobs. Families receiving microfinancing are less likely to pull their children out of school for economic reasons. As well, in relation to employment, people are more

c. likely to open small businesses that will aid the creation of new jobs. Overall, the benefits outline that the microfinancing initiative is set out to improve the standard of living amongst impoverished communities.

d. There are also many challenges within microfinance initiatives which may be social or financial. Here, more articulate and better-off community members may cheat poorer or less-educated neighbours. This may occur intentionally or inadvertently through loosely run organizations. As a result, many microfinance initiatives require a large amount of social capital or trust in order to work effectively. The ability of poorer people to save may also fluctuate over time as unexpected costs may take priority which could result in them being able to save little or nothing some weeks. Rates of inflation may cause funds to lose their value, thus financially harming the saver and not benefiting collector.

e. Small loans are more expensive to process than large ones because they take longer to process. Without employment history or collateral, microfinance loans require a more hands-on, time-intensive assessment to determinecreditworthiness.

f. Microfinance institutions (MFIs) usually send a representative to visit the client aspart of this process, making the process even more challenging and costly in remote or sparsely populated areas. Once a loan is approved, MFIs often send loan officers to disburse loans and collect payments in person, which also adds significant expense when compared with the way traditional banks operate. MFIs have to charge rates that are higher than normal banking rates to cover their costs and keep the service available.

g. The good news is that technology and new business models are creating opportunities to reduce costs and reach more people. For example, banks andMFIs can use mobile money and agent networks to disburse loans and collect payments instead of sending loan officers to remote areas to make these transactions. These types of innovations help to reduce the cost of doing business with poor clients and, in turn, can reduce charges to clients. Concerns about the impact of excessive interest rates, abusive lending practices, and over- indebtedness among poor borrowers have led to increased attention to responsible

h. Finance and consumer protection measures. Three main areas of protective measures have emerged:

i. Consumer protection, regulation, and supervision to ensure that customers are treated fairly and appropriately, and that they understand the implications of their actions.

j. Improved standards and codes of conduct within the industry, with an emphasison consistency.

k. More informed consumers, so that they can become more responsible for theirown financial welfare.

The microfinance community has responded with multifaceted approaches to focus on consumer protection and the social imperative behind financial inclusion and microfinance. The Smart Campaign, the Social Performance Task Force (SPTF), and True lift each address different but complementary aspects of consumer protection and social performance. The investment community has responded by creating a responsible investment initiative. The Principles for Investors in Inclusive Finance (PIIF) provide a framework for responsible investment in inclusive finance

7.6 Microfinance Channels in India

Microfinance in India is operated through two channels; SHG - Bank Linkage Programme (SBLP) and Microfinance Institutions (MFIs).

1. SHG - Bank Linkage Programme (SBLP):

Self-help groups - Bank Linkage Programme (SBLP) was initiated by the National Bank for Agriculture and Rural Development, popularly known as NABARD, in 1992. The SBLP model motivates women from financially backward classes to unite together to form Self-help groups of 10-15 members. These women contribute their individual savings to their groups, which at later stages offer loans for funding income-generating activities for the members. These SHGs also offer bank loans at later stages.

This model has been a success in the past several years and has gained a lot of popularity for contributing to women's empowerment in the country. After reaching stability, these groups function independently with minimal support from NABARD, Small Industries Development Bank of India (SIDBI), and NGOs.

2. **Microfinance Institutions (MFIs):**

Microfinance Institutions have been gaining popularity in recent years and are considered as an effective tool to uplift underdeveloped areas and low-income individuals. They generally run on the concept of joint liability, i.e. an informal group of 4-15 individuals who seek loans either jointly or individually. These loans are typically taken for agricultural or associated activities.

7.7 How Microfinance Companies give loans to borrowers

Since the target segment they are catering to is specialized base who do not have access to credit previously, while this loan amount however small would help them immensely there is also a risk factor involved which needs to be factored in by the microfinance companies.

Once the skills and the purpose and the education qualifications of the loans are ascertained by the representative from the microfinance institution, then they draw up an agreement which contains the terms during the loan period.

The presence of a similar peer group helps in the part of maintenance and recollection of the loan, if the borrower has a specialized skill like weaving and handicrafts or towards a new business opportunity, then the microfinance company might treat it differently.

This is the difference that microfinance companies are making in the country while having a robust process governed by social norming and peer groups, they are also able to ensure a good collection stat. These institutions will help taking Indians towards the next level in financial inclusion.

The other trends that are noticed through the microfinance companies are that, experts have thought that the microfinance was catering to only the rural sectors where people who supported themselves through agriculture and allied fields, but it was also seen that the microfinance companies were giving out different types of loans to the urban poor too. The microfinance companies have also started giving loans to the micro enterprises and filling in a gap in the credit system, through this way the dreams of small entrepreneurs are also being realized.

SUMMARY

Microfinance is a source of financial services for entrepreneurs and small businesses lacking access to banking and related services. It refers to a

movement that envisions a world where low-income households have permanent access to high-quality and affordable financial services to finance income-producing activities, build assets, stabilize consumption, and protect against risks.

Microfinance institutions and other financial service providers have worked over the past decades to develop products and delivery methods to meet the diverse financial needs of low-income people. Poor people need many kinds of financial products and services and there is a growing range of organizations working to reach them with savings, insurance, transfers, and credit services.

Microfinance refers to an array of financial services, including loans, savings and insurance, available to poor entrepreneurs and small business owners who have no collateral and wouldn't otherwise qualify for a standard bank loan. Most often, microloans are given to those living in still-developing countries who are working in a variety of different trades, including carpentry, fishing and transportation.

There are also many challenges within microfinance initiatives which may be social or financial. Here, more articulate and better-off community members may cheat poorer or less-educated neighbours. This may occur intentionally or inadvertently through loosely run organizations. As a result, many microfinance initiatives require a large amount of social capital or trust in order to work effectively.

Chapter 8 : Technical Analysis of Stock

8.1 What Is Technical Analysis?

Technical analysis is a method of evaluating securities by analyzing the statistics generated by market activity, such as past prices and volume. Technical analysis is the study of market action (price, volume and open interest) through use of charts to determine current market / price trend and anticipate future market / price trend.

Technical analysts do not attempt to measure a security's intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity. Unlike fundamental analysts, technical analysts don't care whether a stock is undervalued - the only thing that matters is a security's past trading data and what information this data can provide about where the security might move in the future.

The field of technical analysis is based on three assumptions:

1. The market discounts everything.
2. Price moves in trends.
3. History tends to repeat itself.

1. The Market Discounts everything

A major criticism of technical analysis is that it only considers price movement, ignoring the fundamental factors of the company. However, technical analysis assumes that, at any given time, a stock's price reflects everything that has or could affect the company - including fundamental factors. Technical analysts believe that the company's fundamentals, along with broader economic factors and market psychology, are all priced into the stock, removing the need to actually consider these factors separately. This only leaves the analysis of price movement, which technical theory views as a product of the supply and demand for a particular stock in the market.

2. Price Moves in Trends

In technical analysis, price movements are believed to follow trends. This means that after a trend has been established, the future price movement is more likely to be in the same direction as the trend than to be against it. Most technical trading strategies are based on this assumption.

3. History Tends To Repeat Itself

Another important idea in technical analysis is that history tends to repeat itself, mainly in terms of price movement. The repetitive nature of price movements is attributed to market psychology; in other words, market participants tend to provide a consistent reaction to similar market stimuli over time. Technical analysis uses chart patterns to analyze market movements and understand trends. Although many of these charts have been used for more than 100 years, they are still believed to be relevant because they illustrate patterns in price movements that often repeat themselves.

8.2 Technical Analysis: Fundamental Vs. Technical Analysis

Technical analysis and fundamental analysis are the two main schools of thought in the financial markets (Shah *et al*. 2018). As we've mentioned, technical analysis looks at the price movement of a security and uses this data to predict its future price movements. Fundamental analysis, on the other hand, looks at economic factors, known as fundamentals. Let's get into the details of how these two approaches differ, the criticisms against technical analysis and how technical and fundamental analysis can be used together to analyze securities.

The Differences

Charts vs. Financial Statements

At the most basic level, a technical analyst approaches a security from the charts, while a fundamental analyst starts with the financial statements.

By looking at the balance sheet, cash flow statement and income statement, a fundamental analyst tries to determine a company's value. In financial terms, an analyst attempts to measure a company's intrinsic value. In this approach, investment decisions are fairly easy to make - if the price of a stock trades below its intrinsic value, it's a good investment. Although this is an oversimplification (fundamental analysis goes beyond just the financial statements) for the purposes of this tutorial, this simple tenet holds true.

Technical traders, on the other hand, believe there is no reason to analyze a company's fundamentals because these are all accounted for in the stock's price. Technicians

believe that all the information they need about a stock can be found in its charts.

Time Horizon

Fundamental analysis takes a relatively long-term approach to analyzing the market compared to technical analysis. While technical analysis can be used on a timeframe of weeks, days or even minutes, fundamental analysis often looks at data over a number ofyears.

The different timeframes that these two approaches use is a result of the nature of the investing style to which they each adhere. It can take a long time for a company's value to be reflected in the market, so when a fundamental analyst estimates intrinsic value, again is not realized until the stock's market price rises to its "correct" value. This type of investing is called value investing and assumes that the short-term market is wrong, but that the price of a particular stock will correct itself over the long run. This "long run" can represent a timeframe of as long as several years, in some cases.

Furthermore, the numbers that a fundamentalist analyzes are only released over long periods of time. Financial statements are filed quarterly and changes in earnings per share don't emerge on a daily basis like price and volume information. Also remember that fundamentals are the actual characteristics of a business. New management can't implement sweeping changes overnight and it takes time to create new products, marketing campaigns, supply chains, etc. Part of the reason that fundamental analysts use a long-term timeframe, therefore, is because the data they use to analyze a stock is generated much more slowly than the price and volume data used by technical analysts.Trading Versus Investing

Not only is technical analysis more short term in nature that fundamental analysis, butthe goals of a purchase (or sale) of a stock are usually different for each approach. In general, technical analysis is used for a trade, whereas fundamental analysis is used tomake an investment. Investors buy assets they believe can increase in value, while traders buy assets they believe they can sell to somebody else at a greater price. The line between a trade and an investment can be blurry, but it does characterize a difference between the two schools.

Can They Co-Exist?

Although technical analysis and fundamental analysis are seen by many as polar opposites - the oil and water of investing - many market participants have experienced great success by combining the two. For example, some fundamental analysts use technical analysis techniques to figure out the best time to enter into an undervalued security. Oftentimes, this situation occurs when the security is severely oversold. By timing entry into a security, the gains on the investment can be greatly improved.

Alternatively, some technical traders might look at fundamentals to add strength to a technical signal. *For example*, if a sell signal is given through technical patterns and indicators, a technical trader might look to reaffirm his or her decision by looking at some key fundamental data. Oftentimes, having both the fundamentals and technicals on your side can provide the best-case scenario for a trade. While mixing some of the components of technical and fundamental analysis is not well received by the most devoted groups in each school, there are certainly benefits to at least understanding both schools of thought.

8.3 Technical Analysis: The Use of Trend line

Technical analysis is built on the assumption that prices trend. Trend Lines are an important tool in technical analysis for both trend identification and confirmation. A trend line is a straight line that connects two or more price points and then extends intothe future to act as a line of support or resistance. Many of the principles applicable to support and resistance levels can be applied to trend lines as well.

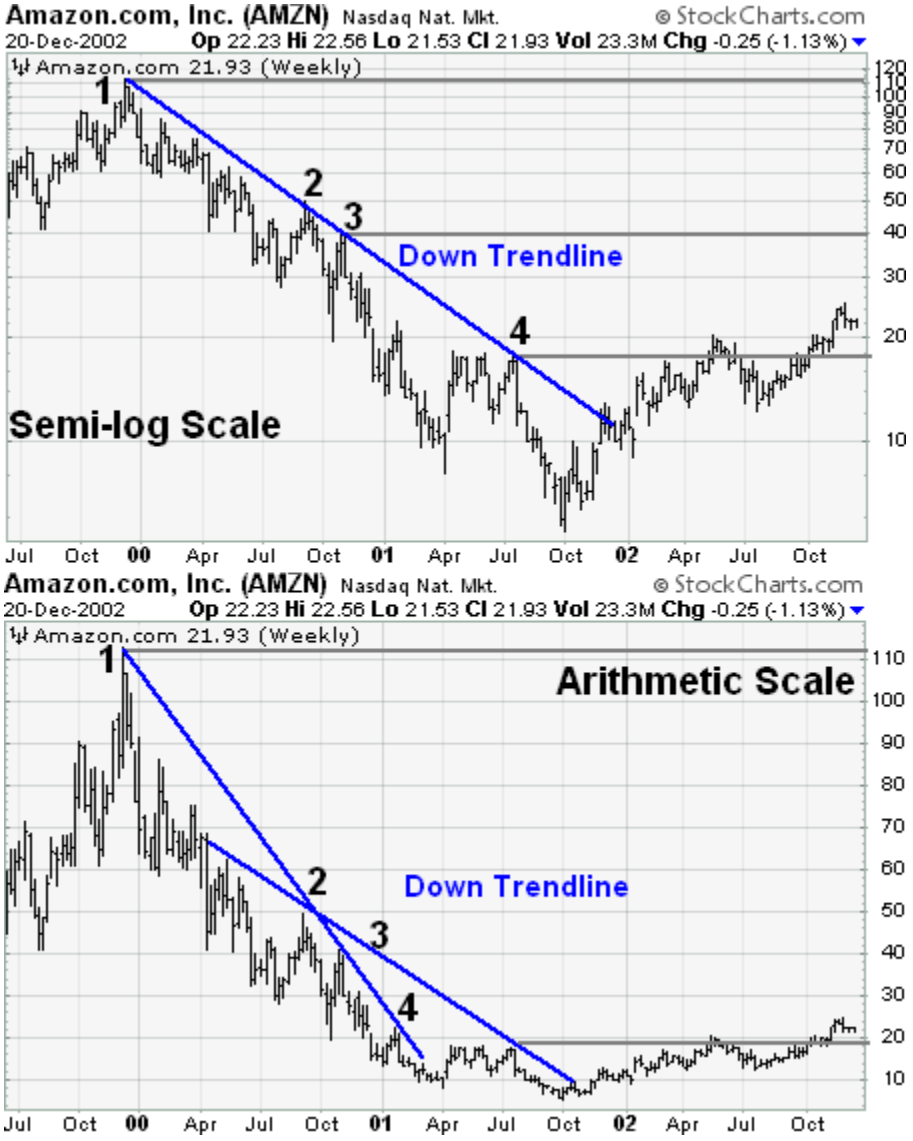
Uptrend Line: An uptrend line has a positive slope and is formed by connecting two or more low points. The second low must be higher than the first for the line to have a positive slope. Uptrend lines act as support and indicate that net-demand (demand lesssupply) is increasing even as the price rises. A rising price combined with increasing demand is very bullish, and shows a strong determination on the part of the buyers. As long as prices remain above the trend line, the uptrend is considered solid and intact. A break below the uptrend line indicates that net-demand has weakened and a change intrend could be imminent.

Downtrend Line: A downtrend line has a negative slope and is formed by connecting two or more high points. The second high must be lower than the first for the line to have a negative slope. Downtrend lines act as resistance, and indicate that net-supply (supply less demand) is increasing even as the price declines. A declining price combined with increasing supply is very bearish, and shows the strong resolve of the sellers. As long as prices remain below the downtrend line, the downtrend is solid and intact. A break above the downtrend line indicates that net-supply is decreasing and that a change of trend could be imminent.

Scale Settings

High points and low points appear to line up better for trend lines when prices are displayed using a semi-log scale. This is especially true when long-term trend lines are being drawn or when there is a large change in price. Most charting programs allow users to set the scale as arithmetic or semi-log. An arithmetic scale displays incremental values (5, 10, 15, 20, 25, 30) evenly as they move up the y-axis. A $10 movement in price will look the same from $10 to $20 or from $100 to $110. A semi-log scale displays incremental values in percentage terms as they move up the y-axis. A move from $10 to $20 is a 100% gain, and would appear to be a much larger than a move from $100 to $110, which is only a 10% gain.

In the case of EMC there was a large price change over a long period of time. While there were not any false breaks below the uptrend line on the arithmetic scale, the rate of ascent appears smoother on the semi-log scale. EMC doubled three times in less than two years. On the semi-log scale, the trend line fits all the way up. On the arithmetic scale, three different trend lines were required to keep pace with the advance.



In the case of Amazon.com there were two false breaks above the downtrend line as thestock declined during 2000 and 2001. These false break outs could have led to premature buying as the stock continued to decline after each one. The stock lost 60% of its value three times over a two year period. The semi-log scale reflects the percentage loss evenly, and the downtrend line was never broken.

Validation

It takes two or more points to draw a trend line The more points used to draw the trendline, the more validity attached to the support or resistance level represented by the trend line. It can sometimes be difficult to find more than 2 points from which to construct a trend line Even though trend lines are an

important aspect of technical analysis, it is not always possible to draw trend lines on every price chart. Sometimes the lows or highs just don't match up, and it is best not to force the issue. The general rule in technical analysis is that it takes two points to draw a trend line and the third point confirms the validity.

The chart of Microsoft shows an uptrend line that has been touched 4 times. After the third touch in Nov-99, the trend line was considered a valid line of support. Now that the stock has bounced off of this level a fourth time, the soundness of the support level is enhanced even more. As long as the stock remains above the trend line (support), the trend will remain in control of the bulls. A break below would signal that net-supply was increasing and that a change in trend could be imminent.

Spacing of Points

The lows used to form an uptrend line and the highs used to form a downtrend line should not be too far apart, or too close together. The most suitable distance apart will depend on the time frame, the degree of price movement, and personal preferences. If the lows (highs) are too close together, the validity of the reaction low (high) may be in question. If the lows are too far apart, the relationship between the two points could be suspect. An ideal trend line is made up of relatively evenly spaced lows (or highs). The trend line in the above MSFT example represents well-spaced low points.

On the Wal-Mart example, the second high point appears to be too close to the first high point for a valid trend line; however, it would be feasible to draw a trend line beginning at point 2 and extending down to the February reaction high.

Angles

As the steepness of a trend line increases, the validity of the support or resistance level decreases. A steep trend line results from a sharp advance (or decline) over a brief period of time. The angle of a trend line created from such sharp moves is unlikely to offer a meaningful support or resistance level. Even if the trend line is formed with three seemingly valid points, attempting to play a trend line break or to use the support and resistance level established it will often prove difficult.

The trend line for Yahoo! was touched four times over a 5-month period. The spacing between the points appears OK, but the steepness of the trend line is unsustainable, and the price is more likely than not to drop below the trend line. However, trying to time this drop or make a play after the trend line is broken is a difficult task. The amount of data displayed and the size of the chart can also affect the angle of a trend line. Short and wide charts are less likely to have steep trend lines than long and narrow charts. Keep that in mind when assessing the validity and sustainability of a trend line.

Internal Trend Lines

Sometimes there appears to be the possibility for drawing a trend line, but the exact points do not match up cleanly. The highs or lows might be out of whack, the angle might be too steep or the points might be too close together. If one or two points could be ignored, then a fitted trend line could be formed. With the volatility present in the market, prices can over-react, and produce spikes that distort the highs and lows. One method for dealing with over-reactions is to draw internal trend lines. Even though an internal trend line ignores price spikes, the ignoring should be within reason.

The long-term trend line for the S&P 500 extends up from the end of 1994, and passesthrough low points in Jul-96, Sept-98 and Oct-98. These lows were formed with selling climaxes, and represented extreme price movements that protrude beneath the trendline. By drawing the trend line through the lows, the line appears to be at a reasonableangle, and the other lows match up extremely well.

Sometimes, there is a price cluster with a high or low spike sticking out. A price cluster is an area where prices are grouped within a tight range over a period of time. The price cluster can be used to draw the trend line, and the spike can be ignored. The Coca Cola chart shows an internal trend line that is formed by ignoring price spikes and using the price clusters, instead. In October and November 1998, Coke formed a peak, with the November peak just higher than the October peak (1). If the November peak had been used to draw a trend line, then the slope would have been more negative, and there would have appeared to be a breakout in Dec-98 (gray line). However, this would have only been a two-point trend line, because the May-June highs are too close together (black arrows). Once the Dec-99 peak formed (green arrow), it would have been possible to draw an internal trend line based on the price clusters around the Oct/Nov-98 and the Dec-99 peaks (blue line). This trend line is based on three solid touches, and it accurately forecasts resistance in Jan-00 (blue arrow).

Conclusion

Trend lines can offer great insight, but if used improperly, they can also produce false signals. Other items - such as horizontal support and resistance levels or peak-and- trough analysis - should be employed to validate trend line breaks. While trend lines have become a very popular aspect of technical analysis, they are merely one tool for establishing, analyzing, and confirming a trend. Trend lines should not be the final arbiter, but should serve merely as a warning that a change in trend may be imminent. By using trend line breaks for warnings, investors and traders can pay closer attention to other confirming signals for a potential change in trend.

8.4 The Efficient Markets Hypothesis

What Does Efficient Market Hypothesis - EMH **Mean?**

An investment theory that states it is impossible to "beat the market" because stock market efficiency causes existing share prices to always incorporate and reflect all relevant information. According to the EMH, stocks always trade at their fair value on stock exchanges, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and that the only way an investor can possibly obtain higher returns is by purchasing riskier investments. The efficient markets hypothesis (EMH), popularly known as the Random Walk Theory, is the proposition that current stock prices fully reflect available information about thevalue of the firm, and there is no way to earn excess profits, (more than the market overall), by using this information. It deals with one of the most fundamental and exciting issues in finance – why prices change in security markets and how those changes take place. It has very important implications for investors as well as forfinancial managers.

Many investors try to identify securities that are undervalued, and are expected to increase in value in the future, and particularly those that will increase more than others. Many investors, including investment managers,

believe that they **can** select securities that will outperform the market. They use a variety of forecasting and valuation techniques to aid them in their investment decisions. Obviously, any edge that an investor possesses can be translated into substantial profits.

The efficient markets hypothesis (EMH) suggests that profiting from predicting price movements is very difficult and unlikely. The main engine behind price changes is the arrival of new information. A market is said to be "efficient" if prices adjust quickly and, on average, without bias, to new information. As a result, the current prices of securities reflect all available information at any given point in time. Consequently, there is no reason to believe that prices are too high or too low. Security prices adjust before an investor has time to trade on and profit from a new a piece of information.

However, while prices are rationally based, changes in prices are expected to be random and unpredictable, because new information, by its very nature, is unpredictable.

Therefore stock prices are said to follow a **random walk**.

8.5 Three Versions Of The Efficient Markets Hypothesis

The efficient markets hypothesis predicts that market prices should incorporate all available information at any point in time. There are, however, different *kinds* of information that influence security values. Consequently, financial researchers distinguish among three versions of the Efficient Markets Hypothesis, depending on what is meant by the term "all available information".

Weak Form Efficiency

The weak form of the efficient markets hypothesis asserts that the current price fully incorporates information contained in the past history of prices *only*. That is, nobody can detect mis-priced securities and "beat" the market by analyzing past prices. The weak form of the hypothesis got its name for a reason – security prices are arguably the most public as well as the most easily available pieces of information. Thus, one should not be able to profit from using something that "everybody else knows". On the other hand, many financial analysts attempt to generate profits by studying exactly what this hypothesis asserts is of no value - past stock price series and trading volume data. This technique is called **technical analysis**.

The empirical evidence for this form of market efficiency, and therefore against the value of technical analysis, is pretty strong and quite consistent. After taking into account transaction costs of analyzing and of trading securities it is very difficult to make money on publicly available information such as the past sequence of stock prices.

Semi-strong Form Efficiency

The semi-strong-form of market efficiency hypothesis suggests that the current price fully incorporates *all publicly available* information. Public information includes not only past prices, but also data reported in a company's financial statements (annual reports, income statements, filings for the Security and Exchange Commission, etc.), earnings and dividend announcements, announced merger plans, the financial situation of company's competitors, expectations regarding macroeconomic factors (such as inflation, unemployment), etc. In fact, the public information does not even have to be of a strictly financial nature. For example, for the analysis of pharmaceutical companies, the relevant public information may include the current (published) state of research in pain-relieving drugs.

The assertion behind semi-strong market efficiency is still that one should not be able to make profit using something that "everybody else knows" (the information *is* public). Nevertheless, this assumption is far stronger than that of weak-form efficiency. Semi strong efficiency of markets requires the existence of market analysts who are not only financial economists able to comprehend implications of vast financial information, but also macroeconomists, experts adept at understanding processes in product and input markets. Arguably, acquisition of such skills must take a lot of time and effort. In addition, the "public" information may be relatively difficult to gather and costly to process. It may not be sufficient to gain the information from, say, major newspapers and company-produced publications. One may have to follow wire reports, professional publications and databases, local papers, research journals etc. in order to gather all information necessary to effectively analyze securities.

Strong Form Efficiency

The strong form of market efficiency hypothesis states that the current price fully incorporates *all* existing information, both public and private (sometimes called inside information). The main difference between the semi-strong and

strong efficiency hypotheses is that in the latter case, nobody should be able to systematically generate profits even if trading on information *not* publicly known at the time. In other words, the strong form of EMH states that a company's management (insiders) are not be able to systematically gain from inside information by buying company's shares ten minutes after they decided (but did not publicly announce) to pursue what they perceive to be a very profitable acquisition. Similarly, the members of the company's research department are not able to profit from the information about the new revolutionary discovery they completed half an hour ago. The rationale for strong-form market efficiency is that the market anticipates, in an unbiased manner, future developments and therefore the stock price may have incorporated the information and evaluated in a much more objective and informative way than the insiders. Not surprisingly, though, empirical research in finance has found evidence that is inconsistent with the strong form of the EMH.

Chapter 9: Derivatives: Forwards-Futures-Hedging-Basis: Some Hints

9.1 Derivatives

Derivatives are securities whose value is determined by an underlying asset on which it is based **(Osayi et al. 2018).** Therefore the underlying asset determines the price and if the price of the asset changes, the derivative changes along with it. A few examples of derivatives are futures, forwards, options and swaps. The purpose of these securities is to give producers and manufacturers the possibility to hedge risks. By using derivatives both parties agree on a sale at a specified price at a later date. In each derivative certain aspects are documented such as the relation between the derivative, type of underlying asset and the market in which they are traded. It is essential to understand the strengths and weaknesses of each derivative to employ them to their fullest potential.

1. Futures

Futures are exchange organized contracts which determine the size, delivery time and price of a commodity. Futures can easily be traded because they are standardized by an exchange. Per commodity traded there are different aspects specified in a futures contract. First of all is the quality of a commodity. For a commodity to be traded on the exchange, it must meet the set requirements. Second is the size of a single contract. The size determines the units of a commodity that is traded per contract. Thirdly is the delivery date, which determines on which date or in which month the commodity must be delivered. Thanks to the standardization of futures commodities can easily be traded and give manufacturers access to large amounts of raw materials. They can buy their materials on the exchange and don't need to worry about the producer or take on contracts with multiple suppliers.

2. Options

Options are a form of derivatives, which gives holders the right, but not the obligation to buy or sell an underlying asset at a pre-determined price, somewhere in the future.

When you take an option to buy an asset it is called a 'call' and when you obtain the right to sell an asset it is called a 'put'. To determine whether it's profitable to exercise an option, the current market price (spot price) and the price in the option (strike price) need to be compared. By comparing both prices, a choice can be made to either exercise the option or let it expire. When exercising an option there are three positions on which the holder can find themselves.

The first is in the money (ITM), where the strike price is more favourable than the spot price and thus it will be advantageous to exercise the option. The second is at the money (ATM) in which the strike and spot price are equal and so no advantage can be gained. The third is out the money (OTM), where the strike price is higher than the spot price. In this case it is better to let the option expire and buy the commodity at the current market price.

There are two ways of settling an option between two parties. The first way is to physically deliver the underlying commodity. The other way is to cash settle the option. In this way the difference between the spot and strike price is paid to the holder of the option upon exercising of the option.

An option has a few advantages over other derivatives. The most important advantage is that an option is not binding, in the way is does not obligate one to buy a commodity. It gives you the right to buy it and so when the price of the option is higher than the current market price you can just let the option expire and buy at the spot price. The only loss made, will be the premium which is the cost for maintaining the option. Another advantage is the usefulness of options as a hedging tool. Options offer the tools to successfully hedge price movements with a small investment risk.

3. **Forwards**

Forwards and futures are very similar as they are contracts which give access to a commodity at a determined price and time somewhere in the future. A forward distinguish itself from a future that it is traded between two parties directly without using an exchange. The absence of the exchange results in negotiable terms on delivery, size and price of the contract. In contrary to futures, forwards are usually executed on maturity because they are mostly use as insurance against adverse price movement and actual delivery of the commodity takes place. Whereas futures are widely employed by speculators who hope to gain profit by selling the contracts at a higher price and futures are therefore closed prior to maturity.

4. **Swaps**

A swap is an agreement between two parties to exchange cash flows on a determined date or in many cases multiple dates. Typically, one party agrees to pay a fixed rate while the other party pays a floating rate. For example, when trading commodities the first party, an airline company relying of kerosene, agrees to pay a fixed price for a pre-determined quantity of this commodity. The other party, a bank, agrees to pay the sport price for the commodity. Hereby the airline company is insured of a price it will pay for its commodity. A rise in the price of the commodity is in this case paid by the bank. Should the price fall the difference will be paid to the bank.

5. **Caps, floors and collars**

Cap and floor options can be used as an insurance against negative price movements. When two parties agree on a swap contract, both parties take a risk on the price movement of the underlying commodity. To reduce this risk they can also agree on a cap or floor option. This is similar to a swap, because two parties agree to exchange cash flows. The difference is the usage of a maximum or minimum price.

With a cap option, a cash flow will only occur when the spot price rises above the cap price. When the price remains under the cap price a company will buy the commodity for the sport price. When the spot price rises above the cap price, the difference between the spot and cap price will be paid by the other party.

A floor option works similar to a cap option, because the exchange of cash flows only takes place when a condition is met. The only difference is that a cash flow now only takes place when the spot price drops below the floor price.

A collar option is a combination of both a cap and floor option. It sets a maximum and a minimum price. When the spot price remains between these two prices, the commodity will be bought for the current market price. Should the spot price rise or drop outside these boundaries, an exchange of cash flows will occur.

6. **Swaptions**

A swaption is a combination of a regular swap and an option. It gives a holder the right to enter a swap with another party at a given time in the future. Parties usually agree on a swaption when there are uncertainties about the price movements in the future. Just like with options, the swaption will only be executed if the price is more favourable than the spot price. If the spot price upon the maturity date is more favourable, the swaption will expire. In this situation a company will agree on a new swap, based on the current market prices.

9.2 Future Prices: Cost of Carry

'Cost of carry' refers to the costs associated with purchasing and carrying/holding a commodity for a specified period of time. The following formula describes a general cost of carry price relationships between the cash (or spot) price and the future price of the commodity.

Future Price = Cash Price + Interest Costs p.u. + Storage Cost p.u.

$$\text{Or, } FP_{t,T} = CP_t + (CP_t \times R_{t,T} \times \frac{T-t}{365 or 12}) + CS_{t,T}$$

Where, $FP_{t,T}$ = the future price at time t for a futures contract requiring delivery at time T

CP_t = the cash (or spot) price at time t

$R_{t,T}$ = Risk-free interest p.a.

$CS_{t,T}$ = The costs of storing the physical commodity p.u. for the time period (T-t)

$$\text{Interest Costs p.u.} = CP_t \times R_{t,T} \times \frac{T-t}{365 or 12}$$

Future Prices is higher than Cash (or spot) Prices, due to 'Cost of Carry'.

Problem 1. On Aug 10, 2009 the cash (on spot) price of gold was Rs. 8000. At the close of trading on Aug 10, the settlement price of the October 2009 gold futures contract was Rs. 8800. The annualized borrowing rate was about 10%. Finally the cost of storing gold is significantly high at Rs. 500. Calculate the futures price.

Solution. The time from Aug 10, 2009 to October 2009 = 2 months

Future Price = Cash Price + Interest Costs p.u. + Storage Cost p.u.

$$= CP_t + (CP_t \times R_{t,T} \times \frac{T-t}{12}) + CS_{t,T}$$

$$= 8000 + (8000 \times 0.10 \times \frac{2}{12}) + 500$$

$$= 8000 + 133 + 500 = \text{Rs. } 8633$$

9.3 Basis, Contango and Backwardation

Basis: - It is difference between cash (on spot) price and future price.

$$Basis_{t,T} = (CashPrice)_t - (FuturePrice)_{t,T}$$ [Here Basis is negative]

Contango Market: The condition of "Future Price>Cash Price" is commonly referred toas contango market, meaning that the relationship (shown in **A1.**) between future prices and cash prices is determined solely by the 'cost of carry' as a result of which basis is negative.

Backwardation: Backwardation refers to a market in which "Future Price<Cash (or spot) Price" and hence basis is positive. This condition occurs if future prices are determined by consideration other than (or in addition to) cost-of-carry factors.

9.4 Forward Price for an Asset providing no Income

$$F_0 = S_0 \times e^{rt}$$

Where, F_0= Forward Price Today,

R = Risk-free rate of interest p.a. with continuous compounding, for an investment maturing a time T.

S_0 = Price of asset underlying the forward contract today

T = Time when the future contract matures

e = 2.718

Problem 2. Consider a three month-forward contract to buy a zero-coupon bond that will mature one year from today. The current price of the bond is Rs. 850. 3 month risk-free rate of interest, being continuously compounded is 8% p.a. Calculate the forward-price of the bond.

Solution. $F_0 = 850 \times e^{0.8 \times \frac{3}{12}} = 850 \times e^{0.02} =$ Rs. 885.23

9.5 Value of a Forward Contract

$$f = (F_0 - K)e^{-rT}$$

Where, F_0= Current Forward Price for the contract,

r = Risk-free rate for a maturity time T.

f = Value today of a long forward contract,

T = Time to maturity of the contract,

K= Delivery Price/Strike Price

Problem 3. A 6 month forward contract of a non-dividend-paying stock is currently selling at Rs. 25. The strike price is Rs. 24. The risk-free rate of interest (with continuous compounding) is 10% p.a. Find the forward price and the value of forward contract. [$e^{0.05} = 2.718^{0.05} = 1.051265646$]

Solution. Forward Price, $F_0 = S_0 \times e^{rt} = 25 \times e^{0.1 \times \frac{6}{12}} = 25 \times e^{0.1 \times 0.5} = 26.28$

Value of Forward contract,

$$f = (F_0 - K)e^{-rt}$$

$$= (26.28 - 24)e^{-0.1 \times 0.5}$$

$$= 2.17$$

9.6 Hedging, Basis Risk

Concept of Hedging: In ordinary parlance, hedging simply refers to an activity that reduces risk. It is basically concerned with the reduction of market exposure risk. The market exposure cannot be avoidable, but can be hedged on offset by trading in futures, options, and other derivative instruments.

Short Hedges: A short hedge is a hedge that involves a short position in future contracts. It is appropriate when the hedger already owns an asset and expects to sell it at the same time in future and also when a hedger does not own an asset right now, but knows that theasset will be owned at some time in the future.

Long Hedges: A long hedge is a hedge that involves a long position in future contracts. Itis appropriate when a company knows it will have to purchase a certain asset in the futureand wants to lock in a price now.

The Basis: The basis in a hedging situation is:

Spot price of asset to be hedged – Future price contract used

When the future contract is on a financial asset, basis is:

Future Price – Spot Price

- Strengthening of the Basis: When the basis increases due to, increase in spot price > increase in future price.

- Weakening of the Basis: When the basis decreases due to, increase in future price>increase in spot price.

Basis, Risk & Hedging Strategies using Futures: The basis risk arises from the hedgers' uncertainty as to the difference between the spot price and future price.

Basis at the time of $t_1 = b_1 = S_1 - F_1$

Where, S_1 = Spot price at time t_1

F_1 = Future Price at time t_1

Consider a situation where a company/hedger knows, it will sell the asset at time t_2 and initiates a short hedge at time t_1. The price related for the asset is S_2 and the profit on the future position = $F_1 - F_2$

The effective price obtained for the asset with hedging is

$= S_2 + (F_1 - F_2)$

$= F_1 + (S_2 - F_2)$

$= F_1 + b_2$ [Since, Basis at the time of $t_2 = b_2 = (S_2 - F_2)$]

The value of F_1 is known at the time of t_1. If b_2 is known at the time, a perfect hedge would result. Now consider next a situation where a company knows, it will buy the asset at time t_2 and initiates a long hedge at time t_1. The price paid for the asset is S_2 and the loss on the hedge is in $(F_1 - F_2)$. The effective price that is paid with hedging is:

$$S_2 + (F_1 - F_2) = F_1 + (S_2 - F_2) = F_1 + b_2$$

The value of F1 is known at time t_1 and the term b_2 represents basis risk.

Problem 4. Spot and future prices, at the time of hedge is initiated, are Rs. 1150 and Rs. 1120, respectively and that at the time hedge is closed out, they are Rs. 1100 and Rs. 1090 respectively.

a) Calculate the effective price obtained for the asset with hedging when hedger knows that the asset will be sold at the time hedge is closed out and taken a short future position (short hedge) at the time the hedge is initiated.

b) Calculate the effective price paid for the asset with hedging when hedger knows that the asset will be purchased at the time hedge is closed and initiates a long hedge at the time the hedge is initiated.

Solution. $S_1 = 1150$; $S_2 = 1100$; $F_1 = 1120$; and $F_2 = 1090$

From the definition of the basis we get, $b_1 = (S_1 - F_1) = (1150\text{-}1120) = 30$

$b_2 = (S_2 - F_2) = (1100\text{-}1090) = 10$

a) Effective Price = $S_2 + (F_1 - F_2) = S_2 + \text{Gain} = 1100 + (1120 - 1090) = 1130$.

Or, $F_1 + b_2 = 1120 + 10 = 1130$

b) Effective Price = $S_2 + (F_1 - F_2) = 1100 + (1120 - 1090) = 1130$.

The value of F_1 is known at time t_1 and the term b_2 represents basis risk.

9.7 Hedge Ratio (HR), position to be hedged, NIFTY Index Value, No. of future contracts

The optimal hedge ratio is the product of coefficient of correlation between ΔCP (changein spot price) and ΔFP (change in futures price) and the ratio of standard deviation of ΔCP to the standard deviation of ΔFP. Hedge ratio is also equivalent of beta (β) which isa measure of market risk.

$$\therefore\ HR = r \times \frac{\sigma \Delta CP}{\sigma \Delta FP}$$

Where, $\sigma \Delta CP$ = S.D. of change in spot price

$\sigma \Delta FP$ = S.D. of change in futures price

r = coefficient of correlation between the change in spot price and change in futures price

The position to be hedged = Stock value X Beta of stock NIFTY Index Value = Market lot X NIFTY future Index Value

$$\text{No. of future contracts} = \frac{\text{Position to be hedged}}{\text{NIFTY Index Value}}$$

Problem 5. An investor has investment of 1000 shares of a Public Ltd, Co. The spot market price each share is Rs. 1195. He wants to keep the investment for another one month but expects a fall in its price. The investor chooses to hedge by buying future contracts on NIFTY available at 1992 at this moment. The standard deviation of the change in the price of stock over a one-month period is Rs. 38. The standard deviation of the changes in futures price of NIFTY Index over a one-month period is Rs. 41 and the coefficient of correlation between the one-month change in price of the company and one-month change in the NIFTY futures price is 0.72. Determine hedge ratio (HR) andthe number of NIFTY Contracts required. (Market lot = 200)

Solution.

$$HR = r \times \frac{\sigma \Delta CP}{\sigma \Delta FP}$$

$$= 0.72 \times \frac{38}{41} = 0.67$$

Hedge ratio (HR) 0.67 is also equivalent of beta which is a measure of market risk. Position to be hedged = Stock value X Beta of stock = (1195 X 1000) X 0.67 = 800650 NIFTY Index Value = Market lot X NIFTY future Index Value = 200 X 1992 = 384000

$$\text{No. of future contracts} = \frac{\text{Position to be hedged}}{\text{NIFTY Index Value}} = \frac{800650}{398400} = 2.0096637$$

Thus, to fully hedge the purchase of 1000 stock investments, the investor needs to sell 2 NIFTY future contracts.

Problem 6. It is Feb 2, 2010 today. An Indian company expects to receive Euros at the end of April on its sales to French Company. The May future price for the Euro is currently 0.0146. Devise a strategy to lock in a price if Euro 0.0146 plus the bases. Show the result if the spot price of Euro in April may happen to be 0.0140 and the future priceto be 0.0142.

Solution.

Strategy

1. Short May Euro Future Contracts

2. Close out the contract when Euro arrives at the end of May.

Basis Risk: It arises from the hedger company's uncertainty as to the difference between the spot price and May future price of the Euro at the end of May.

Outcome : Given, S2 = 0.0140; $F_2 = 0.0142$; $b_2 = S_2 - F_2$ = Basis = 0.0140 – 0.0142 = - 0.0002

Gain on future = $F1 - F_2$ = 0.0146 – 0.0142 = + 0.0004

The effective price in rupees per Euro received by the hedger is the end of April spot price plus the gain:

$$S_2 + (F_1 - F_2) = S_2 + \text{Gain} = 0.0140 + 0.0004 = 0.0144$$

Alternatively, $F_1 + b2$ = 0.0146 + - (-0.0002) = 0.0144

Chapter 10: Financial Evaluation Of Leasing (Lease Vs Borrowing)

10.1 Process of financial evaluation of leasing

The process of financial evaluation in a lease transaction generally involves 3 steps:

1. Appraisal of the client in terms of his financial strength and credit worthiness.
2. Evaluation of the security/collateral security offered , and
3. Financial evaluation of the proposal.

The most critical part of a leading transaction both to the lessor and the lessee is the financial evaluation of the proposal. The objective of this is to identify the cheaper sourceof finance to a lessee and better investment alternative to the lessor.

10.2 Lessee's Perspective (choice between debt financing versus lease financing)

The lease evaluation from the lessee's point of view involves a choice between debt financing versus lease financing. The decision criteria used is the Net Present Value of Leasing [NPV (L)] or Net advantage of Leasing (NAL). *The discount rate used is the marginal cost of capital for all cash flows other than lease payments and the pre-tax cost of debt for lease payments.* Calculation of Net Present Value of Leasing [NPV (L)] or Netadvantage of Leasing (NAL) can be presented in general format as follows: **(if only one discount rate is given in the problem)**

Years→	0	1	2	3	.....	…..
Particulars						
1. Cost of investment	+xxx					
2. Depreciation		xxx	xxx	xxx	xxx	xxx
3. Loss of depreciation tax Shield		-xxx	- xxx	-xxx	-xxx	-xxx
4. Lease Payment		-xxx	- xxx	-xxx	-xxx	-xxx

Years→	0	1	2	3	.....	…..
5. Tax shield on lease Payment (4 X tax rate)		+xxx	+xxx	+xxx	+xxx	+xxx
6. Salvage value						-xxx
7. Tax shield on Interest (Interest p.a. X tax rate)		-xxx	- xxx	-xxx	-xxx	-xxx
8. Cash flow of lease (1)+(3)+(4)+(5)+(6)+(7)	+xxx	-xxx	- xxx	-xxx	-xxx	-xxx
9. Present Value Interest Factor (PVIF)	1.00	xxx	xxx	xxx	xxx	xxx
10.Present Value of Cash Flow (8 X 9)	+xxx	-xxx	- xxx	-xxx	-xxx	-xxx

Net Present Value of Leasing [NPV (L)] or Net advantage of Leasing (NAL) :

Present Value of Cash Flow of Year 0 + Present values of Cash flow during the life time of asset or Project

If NPV is positive, the leasing alternative should be used, otherwise the borrowingalternative may be preferable.

Calculation of Net Present Value of Leasing [NPV (L)] or Net advantage of Leasing (NAL) can be presented in general format as follows: **(if both discount rates –post-tax marginal cost of capital and pre-tax cost of long-term debt are given in the problem)**

Years→	0	1	2	3	.....	…..
Particulars						
1. Cost of investment	+xxx					
2. Depreciation		xxx	xxx	xxx	xxx	xxx
3. Loss of depreciation tax Shield		-xxx	- xxx	-xxx	-xxx	-xxx
4. Lease Payment		-xxx	- xxx	-xxx	-xxx	-xxx
5. Tax shield on lease Payment (4 X tax rate)		+xxx	+xxx	+xxx	+xxx	+xxx
6. Salvage value						-xxx

Years→	0	1	2	3	.....	…..
7. Tax shield on Interest (Interest p.a. X tax rate)		-xxx	- xxx	-xxx	-xxx	-xxx
8. Cash flow excluding lease payment (1)+(3)+(5)+(6)+(7)	+xxx	-xxx	- xxx	-xxx	-xxx	-xxx
9. Present Value Interest Factor (PVIF)-***using post-tax marginal cost of capital***	xxx	xxx	xxx	xxx	xxx	xxx
10.Present Value of Cash Flow excluding lease payment (8 X 9)	+xxx	-xxx	- xxx	-xxx	-xxx	-xxx
11.Present Value Interest Factor (PVIF)-***using Pre-tax cost of long-term debt***		xxx	xxx	xxx	xxx	xxx
12.Present Value of lease Payment (4 X 11)		-xxx	- xxx	-xxx	-xxx	-xxx
13.Total Present Value of Cash flow (10+12)	+xxx	-xxx	- xxx	-xxx	-xxx	-xxx

Net Present Value of Leasing [NPV (L)] or Net advantage of Leasing (NAL):

Present Value of Cash Flow of Year 0 + Present values of Cash flow during the life time of asset or Project

If NPV is positive, the leasing alternative should be used, otherwise the borrowingalternative may be preferable.

10.3 Lessor's Perspective

The lease evaluation from the point of view of the lessor aims at ascertaining whether toaccept a lessee proposal or to choose from alternative proposals. As in the case of an evaluation by a lessee, the appraisal method used is the discounted cash flow technique based on the lessor's cash flow. The lease

related cash flow from his angle consists of thefollowings:

a) outflows in terms of the initial investment /acquisition cost of the asset at the inception of the lease; income tax on lease payments, VAT on lease transactions, if any; lease administration expenses, such as rental collection charges, expenses on suits for recovery, other direct costs and so on;

b) Inflows such as lease rentals, tax shield on depreciation, residual/salvage value etc.

Problem 1. Excel Industries Ltd. has decided to go for an air conditioning plant costing Rs. 30 million. The company is considering 2 alternatives as follows:

1. Leasing the plant, and
2. Borrowing and purchasing the plant. Sharp leasing is willing to lease the plant to Excel Industries Ltd. at an annual lease rental of Rs. 8.1 million for 5 years, the lease rental being payable in arrears.

The tax relevant depreciation rate on the plant is 25% as per the WDV method. The net salvage value of the plant after 5 years is expected to be 6.4 million. The company has an effective tax rate of 35% and rate of interest on debt is 7% p.a.(pre-tax cost of debt). What is the Net Present Value of Leasing [NPV (L)] or Net advantage of Leasing (NAL)?

Solution (Rs. in million)

Years→	0	1	2	3	4	5
Particulars						
1. Cost of investment	+30.000					
2. Depreciation		7.500	5.625	4.219	3.164	2.373
3. Loss of depreciation tax Shield		-2.625	-1.969	-1.477	-1.107	0.831
4. Lease Payment		-	-	-	-	-8.100
		8.100	8.100	8.100	8.100	

Years→	0	1	2	3	4	5
5. Tax shield on lease Payment (8.1 X 35%)		+2.835	+2.835	+2.835	+2.835	+2.835
6. Salvage value						-6.400
7. Tax shield on Interest (7%of 30 X 35%)		-0.735	-0.735	-0.735	-0.735	-0.735
8. Cash flow of lease (1)+(3)+(4)+(5)+(6)+(7)	+30.000	-8.625	-7.969	-7.477	-7.107	-13.231
9. Present Value Interest Factor (PVIF) @ 7%	1.00	0.935	0.873	0.816	0.763	0.713
10.Present Value of Cash Flow (8 X 9)	+30.000	-8.064	-6.957	-6.101	-5.422	-9.434

Net Present Value of Leasing [NPV (L)] or Net advantage of Leasing (NAL):

Present Value of Cash Flow of Year 0 + Present values of Cash flow during thelife time of asset or Project

= +30.000 + (-8.064 -6.957 -6.101 -5.422 -9.434) = -5.978 millions.

Chapter 11: Case Studies

Case 1 Re: Cost of Capital and optimal capital structure of SAP AG

You have the opportunity to visit SAP AG, the business software company. Based in Walldorf, Germany, SAP offers software development and implementation in application areas such as accounting, logistics and human-resource management to large businesses in Europe, North America and around the world. In 2000 the company had sales of over EUR 6.2 billion.

In recent months the company's stock price has been depressed, and management is concerned about re-examining the financial structure. Management is also concerned with the financing of forthcoming acquisitions: should SAP continue to take advantage of its strong cash flow, or should it begin to use debt financing? If it does raise additional debt, the proceeds will be used for a stock buyback.

You have been asked to evaluate whether the company has an appropriate amount of debt. In 2001 the following information about SAP's current position was collected:

Current share price: 117 EUR

Shares outstanding: 316 million

Beta of the stock based on the German DAX index: 1.3

Debt outstanding: 200 EUR million

Debt rating: AAA

Market rate on bonds with rating AAA 5.65%

Government 10-year bond rate: 4.80%

DAX long-run expected return 9.80% or 5.00% over governments

Company's marginal tax rate: 38%

2001 estimated pre tax profit: 1568

2001 estimated book value of equity: 3734

Based on the company's business, its interest coverage and other factors, the following table shows what an increase in long term debt would do to the company's ratings and its cost of borrowing as well as several key ratios:

Additional debt	New Rating	Intere strate	Interest expense	Interest Coverage ratio	Debt/ capitalization	Debt/boo kequity
0	AAA	5.65%	11	139.76	1%	0.1
2500	AAA	5.65%	153	11.28	7%	0.7
5000	A+	6.22%	323	5.85	14%	1.4
7500	A-	6.56%	669	3.34	27%	2.7
10000	BB-	9.40%	1,429	2.10	41%	4.1

Questions

1. Should SAP take on additional debt? If so, how much?
2. What is the weighted average cost of capital before and after the additional debt?
3. How much does SAP's value increase as a result of the lower cost of capital? What willbe the estimated price per share after the company takes on new debt?

Notes:

1. To answer these questions, you will have to obtain updated data about the company,its share price, etc.
2. To assess the impact on SAP's value, you may assume that the additional value comesfrom the savings from a lower cost of capital each year, and that the savings will continue indefinitely.

Case 2 Re: Financial Analysis of HLL

BALANCE SHEET of Hindustan Lever Limited

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Gross fixed assets	1047.9	1122.8	1364.4	1454.1	1669.6	1889.45
Land & building	223.7	278.3	347.91	385.6	425.3	504.97
Plant & machinery	628	636.5	762.28	779.6	877.6	1013.71
Other fixed assets	102.4	120.9	163.84	185	237.1	260.24
Capital WIP	93.8	87.1	90.37	103.9	129.6	110.53
Less: cumulative depreciation	326.4	328.8	400.1	447.1	511.5	586.9
Net fixed assets	721.5	794	964.3	1007.1	1158.2	13**02.55**
Revalued assets	0.6	0.6	0.6	0.6	0.6	0.6
Investments	328.6	544.5	729.51	1068	1832.1	1668.93
In group/associate cos.	191.8	253.6	296.46	299.1	440.3	352.6
In mutual funds	2.7	77.7	77.67	80.8	104.8	504.42
Other investments	134.1	213.2	355.38	688.1	1287	811.91
Marketable investment	**76.3**	**183.5**	**370.5**	**523.8**	**935.6**	**586.83**
Market value of quoted investment	215.3	573.7	645.14	863.2	969.9	593.85
Deferred tax assets	0	0	0	0	0	349.61
Inventories	**903.4**	**1044.6**	**1145.68**	**1309.8**	**1181.8**	**1240.05**
Raw materials and stores	389.8	484.2	560.06	593.4	539.2	597.12
Raw materials	366.3	455.6	534.78	565.1	514.6	568.31
Stores and spares	23.5	28.6	25.28	28.3	24.6	28.81
Finished and semi-finished goods	514.1	560.4	585.62	716.4	638.9	635.71
Finished goods	470	521.2	548.63	673.8	589.7	587.99
Semi-finished goods	44.1	39.2	36.99	42.6	49.2	47.72
Other stock	0	0	0	0	3.78	7.22
Receivables	**720.8**	**582.11**	**803.16**	**860.4**	**1054.8**	**1268.7**
Sundry debtors	143.5	145.4	192.94	233.7	264.5	424.79

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Debtors exceeding six months	30.3	22.8	14.63	10.7	7.6	7.82
Accrued income	9.3	8.3	13.68	27.4	46.4	45.75
Advances/loans to corporate bodies	30.6	56.1	144.07	51.7	291.6	214.85
Group/associate cos.	30.6	56.1	144.07	51.7	76.8	74.85
Other cos.	0	0	0	0	0	0
Deposits with govt./agencies	16.8	33.5	35.62	42.2	37.7	45.73
Advance payment of tax	0	0.01	0	0	0	0
Other receivables	520.6	338.8	416.85	505.4	414.6	537.58
Cash & bank balance	**203.3**	**574.5**	**659.88**	**810.3**	**522**	**913.15**
Cash in hand	1.3	2.5	1.59	5.47	1.47	1.41
Bank balance	202.8	572	658.29	804.9	520.6	911.74
Intangible assets (not written off)	0	0	89.47	80	47.3	22.38
Intangible assets (goodwill, etc.)	0	0	89.47	80	47.3	22.38
Total Assets	**2878.1**	**3539.71**	**4392**	**5135.6**	**5796.2**	**6765.37**

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Net worth	**938.1**	**1261.2**	**1713.03**	**2102.5**	**2488**	**3043.69**
Authorized capital	225	225	225	225	225	225
Issued capital	145.8	199.1	219.57	219.5	220	220.12
Paid-up equity capital	145.8	199.1	219.57	219.5	220	220.12
Preference capital	0	0	0	0	0	0
Reserves & surplus	**792.37**	**1062.1**	**1493.46**	**1883**	**2268**	**2823.57**
Free Reserves	761.8	1030.5	1459.4	1861.7	2249.4	2802.64
Share premium reserves	46	121.2	178	194.9	194.9	263.26
Other free reserves	715.8	909.3	1281.4	1666.8	2054.5	2539.38

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Specific reserves	29.9	31	33.39	20.7	18	20.26
Revaluation reserves	0.6	0.6	0.6	0.6	0.6	0.67
Accumulated losses	0	0	0	0	0	0
Borrowings	**260**	**186.4**	**264.31**	**177.2**	**111.5**	**83.73**
Bank borrowing	35.1	3.2	90.57	110.9	55.5	24.7
Short-term bank borrowings	31.2	3.2	90.57	110.9	55.5	24.7
Long-term bank borrowings	3.9	0	0	0	0	0
Financial institutional borrowings	12.2	8	4.11	0.2	0	0
Govt./sales tax deferral borrowings	0	0	0	0	0	0
Debentures/bonds	18.6	18.5	17.78	0	0	0
Fixed deposits	91.3	87.3	86.72	5.2	0	0
Borrowings from corporate bodies	1.5	0	0	0	0	0
Commercial paper	15	0	0	0	0	0
Other borrowings	86.3	69.4	65.13	60.9	56	59.03
Secured borrowings	96.4	65.7	146.75	141.3	69.2	43.04
Unsecured borrowings	163.6	120.7	117.56	35.9	42.3	40.69
Current portion of long term debt	22.6	4.1	2.79	2.3	11	3.33
Total foreign currency borrowings	0	0	0	0	0	0
Deferred tax liabilities	**0**	**0**	**0**	**0**	**0**	**103.13**
Current liabilities & provisions	**1680**	**2092.11**	**2414.66**	**2855.9**	**3196.7**	**3534.82**
Current liabilities	1438	1673.61	1858.02	2143.4	2233.9	2410.42
Sundry creditors	1142.3	1596.01	1787.36	2081.4	2163.3	2347.19
Interest accrued/due	15.4	17.8	16.5	7.5	5.3	2.63
Creditors for capital goods	0	0	0	0	0	0
Other current liabilities	280.3	59.8	54.16	54.5	65.3	60.6
Share application money	230.9	0	0	0	0	0
Advance against WIP	0	0	0	0	3	7.09

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Provisions	**242**	**418.5**	**556.64**	**712.5**	**962.8**	**1124.4**
Tax provision	26.4	71.8	40.2	49	172.2	51.89
Dividend provision	129.4	189.2	272.27	374.6	440.1	550.31
Dividend tax provision	0	0	0	0	0	0
Other provisions	86.2	157.5	244.17	288	350.5	522.2
Total liabilities	**2878.1**	**3539.71**	**4392**	**5135.6**	**5796.2**	**6765.37**
Contingent liabilities						
Bills discounted	30.4	41.4	30.83	31.9	99.5	74.65
Disputed taxes	0.00	0.00	0.00	0.00	0.00	0.00
Letters of credit	0.00	0.00	0.00	0.00	0.00	0.00
Total guarantees	59.3	55.3	57.37	12.00	49.6	0.00
Future lease rent payable	0.00	0.00	0.00	0.00	0.00	0.00
Liabilities on capital account	39.2	49.0	39.09	0.00	0.00	0.00

INCOME STATEMENT OF HINDUSTAN LEVER LIMITED

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Income	7137.8	8363.3	10261.57	10978.3	11458.3	11861.77
Other income	106.7	165.2	183.93	269.3	305.9	283.14
Change in stocks	15.2	46.4	-7.9	128.52	-83.85	-4.63
Non-recurring income	137.8	50.4	47.15	14.4	47.8	310.93
Expenditure						
Raw materials, stores, etc.	4533.4	5201.9	6158.31	6548.4	6388.8	6381.54
Wages & salaries	385	448.7	527.23	584.1	614.3	591.7
Energy (power & fuel)	105.8	110.8	118.43	123.1	139.9	152.77
Indirect taxes (excise, etc.)	577.1	626.5	835.44	861.8	870.1	920.66
Advertising & marketing expenses	283	490.6	676.86	746.5	709.2	835.75

Hindustan Lever Ltd. Rs. Crore	Dec-96 12mths	Dec-97 12mths	Dec-98 12mths	Dec-99 12mths	Dec-00 12mths	Dec-01 12mths
Distribution expenses	279.2	289.1	345.77	366.2	446	465.86
Others	386.6	474.9	544.02	596.9	712.4	761.8
Non-recurring expenses	139.9	54	49.43	20.4	20.7	146.01
Profits/losses						
PBDIT	707.5	928.8	1229.4	1543.1	1826.8	2195.13
Financial charges (incl. Lease rent)	57	33.8	29.28	22.3	13.1	7.74
PBDT	650.5	895	1200.2	1520.8	1813.7	2187.39
Depreciation	55.2	57.9	101.05	128.7	130.9	144.66
PBT	595.3	837.1	1099.2	1392.1	1682.8	2042.73
Tax provision	192.55	270	293	318	355	402.42
PAT	**402.8**	**567.1**	**806.2**	**1074.1**	**1327..8**	**1640.31**
Appropriation of profits						
Dividends	261.9	372.44	531.35	711.09	942.3	1158.31
Equity dividend	249	338.5	463.46	638.1	770.2	1100.62
Dividend tax	12.9	33.9	67.9	72.9	172.1	57.69
Retained earnings	140.9	194.7	274.9	363.1	385.5	482

Questions

1. How the financial ratios are calculated by using the balance sheet and income statement of HLL, the largest fast moving consumer goods company in India? Offer necessary interpretations from the ratios.
2. Also prepare the common size financial statements of HLL.
3. Show the complete financial analysis of HLL.

Hints

Current Ratio

Calculation of current ratio for HLL

	1997	1998	1999	2000	2001
Current assets	2240.99	2753.33	3295.08	3321.35	3712.06
Current liabilities	2093.01	2503.92	2966.85	3252.71	3559.52
Current ratio	1.071	1.1	1.111	1.021	1.043

The norm for the current ratio in FMCG industry is 2:1. The current ratio of HLL is almostequal to 1:1, which is less than the norm. On an average, for every rupee of current liability, HLL has Rs. 1.069 of current assets. The current ratio can be better judged if it isstudied along with ratios such as inventory turnover and receivables turnover.

The higher the receivables and inventory turnover, greater the firm's ability to pay its current liabilities. Generally, a low current ratio indicates the firm's inability to meet itscurrent obligations. But a high current ratio may represent unnecessary blocking of liquid assets such as cash and cash equivalents.

Quick Ratio : Calculation of quick ratio for HLL

	1997	1998	1999	2000	2001
Quick assets	792.53	1126.87	1399.13	1632.7	1835.23
Current liabilities	2093.01	2503.92	2966.85	3252.71	3559.52
Quick ratio	0.38	0.45	0.47	0.5	0.52

A quick ratio of 1:1 is usually considered satisfactory. In the case of HLL, a low quick ratioas well as a low current ratio may indicate poor working capital management.

Debtors Turnover Ratio: Calculation of debtors' turnover ratio for HLL

	1997	1998	1999	2000	2001
Net credit sales	8363.3	10261.57	10978.31	11458.3	11861.77
Average debtors	144.49	169.19	213.34	249.13	344.65
Debtors' turnover ratio	57.88	60.65	51.45	45.99	34.41

The debtors' turnover ratio of HLL shows a downward trend. In this case, the

average collection period of HLL must also be calculated and analyzed.

Average Collection Period: Calculation of average collection period

	1997	1998	1999	2000	2001
Days in a year	365	365	365	365	365
Debtors' turnover	57.88	60.65	51.46	45.99	34.41
ACP	6.3	6	7	7.9	10.6

Here, the average collection period is gradually increasing, indicating that an extended line of credit has been allowed. There was a sharp decline in the debtors' turnover ratio in 1999, and the decline continued till 2001. The fall in debtors' turnover ratio can be attributed to any of the following reasons:

- There might be an increase in the volume of sales relative to the increase in debtors.
- The firm might have extended the credit period for debtors.
- The firm's debt collection team is not performing well, as a result rate of which the realization has come down.

Interest Coverage Ratio: Calculation of interest coverage ratio for HLL

	1997	1998	1999	2000	2001
PBIT/interest	870.9/33.8	1128.4/29.2	1414.4/22.3	1695.9/13.1	2050.47/7.74
Interest coverage	25.76	38.64	63.43	129.46	264.92

This ratio shows the number of times the interest charges on long-term liabilities have been collected before the deduction of interest and tax. A high interest coverage ratio implies that the company can easily meet its interest burden even if profit before interest and taxes suffers a sharp decline. The interest coverage ratio for HLL is going up every year, implying that it can meet its interest obligations even if there is a decline in profits. From the creditors' point of view, the larger the coverage; the greater the firm's capacity to handle fixed-charge liabilities and the more assured the payment of interest to the creditors. A low ratio is a warning signal which indicates that the firm is using excessive debt and does not have the ability to pay interest to creditors. However, a very high ratio implies an unused debt capacity.

Net Profit Margin: Calculation of net profit margin for HLL

	1997	1998	1999	2000	2001
Net Profit/Net Sales ´ 100	567.1 / 7736.75	806.2 / 9426.13	1074.1/ 10116.45	1327.8/ 10588.18	1640.31/ 10941.11
Net Margin	7.32	8.55	10.61	12.54	14.99

The net profit margin of HLL has increased significantly. The high net profit margin implies higher returns to shareholders in the form of dividends and stock price appreciation.

Return on Assets (ROA): Calculation of ROA for HLL

	1997	1998	1999	2000	2001
PAT/Averagetotal assets * 100	567.1/ 3208.9	806.2/ 3965.85	1074.1/ 4763.8	1327.8/ 5465.9	1640.31/ 6280.78
ROA	17.67	20.32	22.55	24.29	26.12

The above calculations show an upward trend in the return on total assets. However, these calculations do not include the interest payable to the creditors of the firm in the net profits. To calculate the actual returns on total assets, interest should be included in net profits, because assets are financed by owners as well as creditors.

Over Trading Ratio: Calculation of over trading ratio

A company intending to increase its sales should ensure that it has sufficient net working capital to fall back on in the event of creditors becoming due for payment or else the company may have to face a severe liquidity crisis. An increase in the net working capital along with an increase in sales will help the company avoid a liquidity crisis.

	1997	1998	1999	2000	2001
Net working capital	147.98	249.41	328.23	68.64	152.54
Credit sales	8363.3	10261.57	10978.31	11458.3	11861.77
Over trading ratio	0.017	0.024	0.029	0.006	0.013

The over trading ratio for HLL shows an upward trend till 1999, which indicates an increase in the net working capital, along with an increase in sales. But in 2000 and 2001, the company's net working capital did not

increase in proportion to the increasein sales.

Working Capital Performance Ratio: Calculation of working capital performance ratio.

This ratio refers to the sources through which the debtors of a firm are financed. A company can finance its debtors through its trade creditors or its advance paymentsfrom customers.

	1997	1998	1999	2000	2001
Trade debtors	582.11	803.16	860.4	1054.8	1268.7
Trade creditors	1596.02	1787.36	2081.4	2164.3	2347.19
Working capital performance ratio	0.364	0.449	0.413	0.487	0.54

A working capital ratio of 2:1 is desirable. The ratio more than 2 indicates a better abilityto meet ongoing and unexpected bill payments. The ratio less than 2 indicates that the company may have difficulties meeting its short-term commitments and that additional working capital support is required. In HLL's case, though this ratio is well below the desirable 2:1 ratio, it is increasing every year.

Common size income statement of Hll	1997	1998	1999	2000	2001
Raw materials & Stores etc.	62.19	60.01	59.64	55.75	53.79
Wages & Salaries	5.36	5.14	5.32	5.36	4.98
Energy (Power & Fuel)	1.32	1.15	1.12	1.22	1.29
Indirect Taxes (Excise etc.)	7.49	8.14	7.85	7.59	7.76
Advertising & Marketing Expenses	5.86	6.59	6.79	6.18	7.04
Distribution Expenses	3.45	3.36	3.34	3.89	3.92
Others	5.67	5.3	5.43	6.22	6.42
Tax Provision	3.23	2.86	2.89	3.098	3.39
PAT	6.77	7.85	9.78	11.58	13.82
Gross Sales	100	100	100	100	100

COMMON SIZE BALANCE SHEET OF HLL

	1997	1998	1999	2000	2001
Liabilities					
Equity Share Capital	5.62	5	4.27	3.79	3.25
Reserves & Surplus	30	34	36.66	39.13	41.73
Borrowings	5.26	6.02	3.45	1.92	1.23
Current liabilities & Provisions	59	55	55.61	55	52.24
Total Liabilities	**100**	**100**	**100**	**100**	**100**
Assets					
Fixed Assets	22.43	21.96	19.61	19.97	19.25
Investments	15.38	16.6	20.8	31.06	24.67
Inventories	29.51	26.09	25.5	20.4	18.33
Receivables	16.45	18.31	16.76	18.21	18.75
Cash & Bank Balances	16.23	15.02	15.78	9	13.51
Total assets	100	100	100	100	100

Case 3 Re: Indian Financial System

Globalization: The Role of Institution Building in the Financial System Sector: The Indian Case

This case study traces the evolution of the Indian financial system. India has had a long tradition of financial institution building. At Independence, India inherited a fairly diversified set up, both in respect of institutions and market. There was gradual increase in State control over the financial system until the initiation of the financial sector reform process. Under State control there was a tremendous increase in the spread of financial services across the economy.

Financial sector reforms, introduced in the backdrop of a serious balance of payments crisis in 1991, have been aimed at increasing stability and efficiency of the system.

Towards this end, the regulatory and supervisory framework has also moved from micro-governance towards macro-management; imparting greater freedom to both institutions and markets in resource allocation, pricing and risk management. A salient feature of the reforms has been that of 'gradualism', which is credited with the advantage of enhancing macro stability, while fostering appropriate microeconomic linkages. The salutary effect of the institution building process in the post-reform period has been evident across both institutions and markets. The effect, however, has been uneven across sectors, reflecting largely the differential phasing in of sector specific reforms, keeping in view their overall systemic importance. The Indian experience also suggests that the sequencing of policies across institutions needs to be tempered with individual country-specific characteristics and circumstances, drawing upon international best practices.

THE INSTITUTIONAL BUILDING PROCESS

Early Days of Institution Building: Post-Independence Up to 1968

India has a long history of financial intermediation. The first bank in India to be set up on modern lines was in 1770 by an agency house. The earliest but short-lived attempt to establish a central bank was in 1773. India was also a forerunner in terms of development of financial markets. The Bombay Stock Exchange was functional as early as 1870. The first life insurance company in the country, Oriental Life Insurance Company, had been established as far back in 1818 and the first general (non-life) insurance company was set up in

1850. By independence, India had a fairly well developed commercial banking system in existence. In 1951, there were 566 private commercial banks in India with 4,151 branches, the overwhelming majority of which were confined to larger towns and cities. Savings in the form of bank deposits accountedfor less that 1 per cent of national income, forming around 12 per cent of the estimated saving of the household sector. The Reserve Bank of India (RBI) was originally established in 1935 by an Act promulgated by the then Government of India, but as a shareholders institution like the Bank of England. After India's independence, in the context of the need for close integration between its policies and those of the Government the Reserve Bank became a state owned institution from January 1, 1949. It was only in this year that the Banking Regulation Act was enacted to provide a framework for regulation and supervision of commercial banking activity. However, despite the widespread development of the banking system, the Indian financial system was characterized by lack of depth at the time of independence. Organized credit institutions had a negligible presence in rural India. The entire process of institution building in the post-independence period revolved around the country's need to mobilize savings in order to raise the investment rate and to channel resources to identified sectors of the economy, notably agriculture and industry. The objective of economic development had assumed a sense of urgency in the 1950s with the launching of the Five Year Plans. At the beginning of planning in 1951, the Indian economy operated at relatively low levels of saving and investment. The Plan observed that the desirable rate of growth in output could be achieved only if investment could be stepped up substantially. The planning strategy was based on the concept of a mixed economy where both public and private sectors had a role to play with regard to investment activity and in mobilization of resources. The First Five Year Plan stated, "Central banking in a planned economy can hardly be confined to the regulation of the overall supply of credit or to a somewhat negative regulation of the flow of bank credit. It would have to take on a direct active role, firstly, in creating or helping to create the machinery needed for financing developmental activities all over the country and secondly, ensuring that the finance available flows in the directions intended". Thus, the experience during this period suggested that institution building and development of the financial system was propelled by the vision of the country's central planners after Independence. The vision was to ensure

that sectorial needs of credit to agriculture and industry were met in an organized manner. The RBI was vested with the major responsibility of developing the institutional infrastructure in the financial system. The commercial banking system was expanded to take care of the general banking needs of accepting deposits and extend short-term working capital to industry. In order to accelerate the pace of extension of banking facilities in the country and to provide a greater response to the credit needs of the cooperative sector, the biggest commercial bank State Bank of India was brought under the majority ownership of the RBI. To cater to the long-term financing needs of industry at the national level, and in the absence of a well-developed capital market, Development Finance Institutions (DFIs) were established under the majority ownership of the RBI. The RBI also set up a mechanism to provide concessional finance to these institutions. State Finance Corporations (SFCs) were set up to cater to long-term needs of industry at the State level. The financing needs of the rural agriculture sector was sought to be fulfilled by a three-tier cooperative banking structure which was complemented by UCBs at the urban sector level. The accelerated pace of public investment and industrialization during the end of 1950s and the early 1960s created conditions for stepping up private investment in industry. The Unit Trust of India came into existence in 1964 also initially sponsored by RBI to provide a channel for retail investors for participating in the capital market.

Recognizing that exports did not receive much attention from the country's planners in the early years, an Export Risks Insurance Corporation was set up in July 1957, which was later converted into the Export Credit and Guarantee Corporation in January 1964. The RBI concentrated on regulation, mechanisms and organizations in its role of institution building. For instance, following serious financial difficulties and the failure of several banks, including two relatively large scheduled banks, a deposit insurance scheme was set up in 1962 with the establishment of the Deposit Insurance Corporation.

Bank Nationalization and After: 1969–1990 (The Pre-Reform Years)

Even though the Indian banking system made considerable progress both functionally and in terms of geographical coverage during the above period, there were still many rural and semi-urban areas, which were not served by banks. Moreover, the large industries and big and established houses tended to enjoy a major portion of the credit facilities, to the detriment of the priority sectors such as agriculture, small-scale industries and exports. Thus, to bring about a wider diffusion of banking facilities and changes in the pattern of bank lending, the scheme of social control over banks that envisaged organizational and legislative changes was initiated by the Government. The systems of credit planning which identified priorities for loans and advances and Lead Bank Scheme that sought to make the banking system an instrument of development were instruments of social control over banks. This transitory phase was followed by the nationalization of banks. In July 1969, these 14 largest commercial banks were nationalized as a major step to ensure adequate credit flow into genuine productive areas in conformity with Plan priorities. Bank nationalization served to intensify the social objective of ensuring that financial intermediaries fully met the credit demands for productive purposes. Two significant aspects of nationalization were (i) rapid branch expansion and (ii) channeling of credit according to plan priorities. To meet the broad objectives, banking facilities were made available in hitherto uncovered areas, so as to enable them to not only mop up potential savings and meet the credit gaps in agriculture and small-scale industries, thereby helping to bring large areas of economic activities within the organized banking system. As a consequence, the perceived need of the borrower gained primacy over commercial considerations in the banking sector. In April 1980, six more private sector banks were nationalized, thus extending the domain of public control over the banking system.

By the middle of the 1970s, it was felt that the task of providing agricultural credit on the requisite scale could not be met by commercial banks, unless they acquire specialized knowledge of rural setting. Against this background, Regional Rural Banks (RRBs) were set up in 1975 to fill this gap in financing. Consequently, by the end of 1975, three separate institutional arrangements – commercial banks, cooperative banks and RRBs - known as the *multi-agency approach* for providing credit in the rural areas emerged. Establishment of

National Bank for Agriculture and Rural Development (NABARD) in 1982 was an important landmark in the history of cooperative credit. The objective of NABARD was to create institutional arrangements at national level for financing, coordinating, guiding, and controlling cooperative credit system. To facilitate this, NABARD was given certain regulatory control over rural credit cooperatives. In order to give specialized and focused attention to different segments of industry, certain other specialized financial institutions have come into existence since the 1980s that, in a broad sense, could be included in the genre of DFIs. Apart from NABARD (catering to the agricultural sector), Export-Import (EXIM) Bank of India (catering to export finance), Small Industries Development Bank of India (SIDBI) (catering to credit needs of small industries), and National Housing Bank (NHB) (catering to housing finance). Most recently, the Infrastructure Development Finance Company (IDFC) came into being in 1997 to promote investment of the private sector in infrastructure. In addition to their roles as DFIs, NABARD and NHB have also been entrusted with certain supervisory responsibilities.

There were attempts to develop the capital markets during the 1980s by increasing participants and instruments, improving transparency, reducing transaction costs and ensuring safety in settlement procedures. Companies were facing severe constraints in raising money through equity as they faced tight regulation. Issuance of capital through the equity route, debentures and public sector bonds emerged as new instruments for raising resources in the primary market. The secondary market also witnessed an increase in number of stock exchanges, listed companies and market capitalization. As the stock markets developed, efforts were diverted towards greater transparency and investor protection. Several specialized institutions such as credit rating agencies (e.g. CRISIL, CARE and ICRA) and custodial service provider companies (e.g. Stock Holding Corporation of India Limited (SHCIL)) also took shape during this period. An important development was the establishment of the Over the Counter Exchange of India (OTCEI). The most important development during this period was the setting up of the Securities and Exchange Board of India (SEBI) in 1988.The government securities market was mainly a captive market dictated by the borrowing needs of the Government. Banks were required to hold a certain proportion of their liabilities in the form of government securities. This statutory liquidity ratio (SLR) was increased gradually as the borrowing needs of the Government increased. In order to

facilitate the large borrowing requirements of the Government, interest rates on Government securities were artificially pegged at low levels, unrelated to market conditions. The provision of fiscal accommodation through *ad hoc* treasury bills (issued by RBI on tap at a fixed interest rate of 4.6 per cent) led to high levels of monetization of fiscal deficit during the major part of the 1980s. In order to check the effects of such large-scale monetization, the CRR was frequently increased to control liquidity. The money market, which was intended as a market for equilibrating the demand and supply of funds in the inter-bank market was narrow and relatively illiquid with control on interest rates. It was only in the late 1980s that the interest rate in the inter-bank call money market was deregulated and new instruments like the Commercial Paper and Certificates of Deposits were introduced to make the market more liquid.

The dominance of the public sector and state ownership persisted during the 1980s. The financial system was shaped and architectured to meet the objectives of the Government enunciated through the Plans. Hence, both the liabilities and asset sides of the balance sheets of the financial institutions were controlled. The authorities believed that the main objectives of these institutions were to mobilize savings at low cost and deploy them into identified priority sectors at subsidized rates. Markets did not exist in the true sense. Capital markets were controlled and hence transaction costs were high. The government securities market was just a captive market for raising debt for the Government and the money market was restricted to the inter-bank call money market where interest rates were controlled for most part of the 1980s. Such control resulted in several inefficiencies creeping into the banking system. Repression assumed the form of a high and administered interest rate structure with a large measure of built-in cross-subsidization (in the form of minimum lending rates for commercial sector), high levels of pre-emption of primary and secondary reserve requirements, in the form of cash reserve ratio (CRR) and statutory liquidity ratio (SLR).

On the eve of the reforms in 1991, the SLR and cash reserve ratio (CRR) together pre- empted as much as 63.5 per cent of the bank's deployable resources. Retail lending to riskier areas of business with the 'free' portion of bank's resources engendered 'adverse selection' of borrowers. With limited prospects of recovery, this raised costs and affected the quality of bank assets.

Quantitative restrictions (branch licensing and restrictions on new lines of business) and inflexible management structures severely constrained the operational independence and functional autonomy of banks.

Inflationary expectations and the inequitable tax structures exacerbated the strains on the exchequer, since resources for developmental purposes were not readily forthcoming. As the quality of asset portfolio of banks rapidly deteriorated, it was evident that the profitability of the banking system was severely compromised. In addition, the widespread market segmentation and the constraints on competition exacerbated the already fragile situation. The market for short term funds was reserved for banks and the market for long-term funds was the exclusive domain of Development Financial Institutions (DFIs)5. Direct access of corporate borrowers to lenders (disintermediation) was strictly controlled and non-bank financial companies (NBFCs) were allowed to collect funds only for corporates.

1991 and After: The Reform Years Major Policy Stance of Reform

The reform in the financial sector was attuned to the reform of the economy, which now signified opening up. Greater opening up underscores the importance of moving to international best practices quickly since investors tend to benchmark against such best practices and standards.

Since 1991, the Indian financial system has undergone radical transformation. Reforms have altered the organizational structure, ownership pattern and domain of operation of banks, DFIs and NBFCs. The main thrust of reforms in the financial sector was the creation of efficient and stable financial institutions and markets. Reforms in the banking and non-banking sectors focused on creating a deregulated environment, strengthening the prudential norms and the supervisory system, changing the ownership pattern, and increasing competition.

The policy environment was stanched to enable greater flexibility in the use of resources by banks through reduced statutory pre-emption. Interest rate deregulation rendered greater freedom to banks to price their deposits and loans and the Reserve Bank moved away from micromanaging the banks on both the asset and liability-side. The idea was to impart operational flexibility and functional autonomy with a view to enhancing efficiency, productivity and profitability. The objective was also to create an enabling environment where

existing banks could respond to changing circumstances and compete with new domestic private and foreign institutions that were permitted to operate. Instead, the Reserve Bank focused on tighter prudential norms in the form of capital adequacy ratio, asset recognition norms, provisioning requirements, exposure norms and improved level of transparency and disclosure standards. As the market opens up, the need for monitoring and supervising becomes even more important systemically. The greater flexibility and the prudential regulation were fortified by 'on- site inspections' and 'off-site surveillance'. Furthermore, moving away from the closed economy objectives of ensuring appropriate credit planning and credit allocation, the inspection objectives and procedures, have been redefined to evaluate the bank's safety and soundness; to appraise the quality of the Board and management; to ensure compliance with banking laws and regulation; to provide an appraisal of soundness of the bank's assets; to analyze the financial factors which determine bank's solvency and to identify areas where corrective action is needed to strengthen the institution and improve its performance.

LESSONS FROM THE INDIAN EXPERIENCE

The process of globalization has important implications for the financial sector and the institutions comprising it. In an increasingly globalized environment, the role of the policy maker in the domestic institutional building process can be envisaged in the form of providing a stable macroeconomic environment, increasing competition, establishing a strong regulatory and supervisory framework, evolving an enabling legal system and strengthening the technological infrastructure. A well-knitted institutional set up facilitates the growth and development process of an economy. Effective institutions can make the difference in the success of market reforms. If the financial system is well diversified and the markets are liquid and deep, effective mobilization and allocation of resources will be ensured. Many broad generalizations can be discerned from the Indian experience.

Development of the Indian financial system is premised on the conviction that financial development makes fundamental contributions to economic growth. At the time of Independence, the financial system was fairly liberal. By the 1960s, controls over the financial system were tightened and priority was to set up institutions to mobilize saving and allocate the saving to specified priority sectors. The RBI was vested with the responsibility of developing the

institutional infrastructure in the country. Towards this end, controls on lending and deposit rates were introduced and specialized development banks, catering to varied segments of the economy were established. This institutional design did not achieve the desired results.

The process culminated with the two-stage nationalization process of banks, first in 1969 and thereafter in 1980. Around the same time, insurance business was also brought under the domain of Government control in phases. The process of nationalization expanded the reach of financial services to remote parts of the country. However, the basic principle of mobilizing the saving and channeling the resources to certain sectors at a price not related to the market remained. Notwithstanding the numerous achievements of 'social banking', such as branch expansion and diversion of credit to rural sectors, the high degree of controls on the financial system also manifested itself in several inefficiencies, most notably financial repression. In order to address these shortcomings, gradual liberalization of the financial system was initiated in the late 1980s, which received greater momentum in the 1990s. The closed-economy framework gradually gave way to greater externally oriented and liberal financial (open) system. The 1990s witnessed the advent of economic reforms in the country encompassing trade, industry and the real sectors. The external sector was liberalized. The country adopted a flexible exchange rate regime early in the reform period and encouraged non-debt creating flows in the form of foreign direct investment and foreign institutional investment. Liberalization of the external current account was also undertaken early in the reform cycle. The macroeconomic environment would then influence institutional building. As the economy opens up, the financial system can no longer afford to remain repressed. The financial system will also have to undertake reforms in the form of interest rate deregulation, prudential regulation, good supervisory standards, legal changes and technological up gradation. New institutions operating on market principles would emerge and old institutions would either have to change to cope with the emerging changes or close. Thus, macroeconomic reform and reform in the financial system will have to progress concomitantly. In the early 1990s, a wide-ranging set of reforms, encompassing both financial institutions and markets were undertaken, that paved the way for a more market-driven allocation and pricing of resources. The basic dimensions of the process of globalization have tended to exhibit itself, both domestically;

in terms of greater integration of domestic financial markets with global ones and internationally, in terms of the adoption of a process of gradual convergence with international best practices.

Questions

1. Describe the Indian Financial System before reforms had taken place in 1991.
2. State the institutional building process in India; also state the effects of theinstitution building process in the post-reform period.
3. What is meant by the 'process of globalization'? What are the implications ofthis process on the financial sector and the institutions?
4. Explain the radical transformation of Indian financial system since 1991. Whatare the reasons for that transformation?
5. Explain 'Financial sector reform'. How did it affect the development of capitaland money market in India after 1991?

Case 4 Re: Fund Flow and Cash Flow of Mahindra Satyam

Mahindra Satyam (BSE: 500376) is a Brand identity of **Satyam Computer Services Limited.** Satyam Computer Services Limited was founded in 1987 by B Ramalinga Raju. Mahindra Satyam is a part of the Mahindra Group which is one of the top 10 industrial firms based in India. The company offers consulting and information technology (IT) services spanning various sectors and is listed on the New York Stock Exchange, the National Stock Exchange (India) and Bombay Stock Exchange (India). In June 2009, the company unveiled its new brand identity "Mahindra Satyam" subsequent to its takeover by the Mahindra Group's IT arm, Tech Mahindra. Mahindra Satyam has offices in 32 countries. Mahindra Satyam is ranked 17 in the list of IT services providers in India according to a study by Cyber Media's Dataquest Research in 2011.

Services Provided by Mahindra Satyam

Mahindra Satyam provides services in the following areas:

- Aerospace and Defense
- Banking, Financial Services & Insurance
- Energy and Utilities
- Life Sciences & Healthcare
- Manufacturing, Chemicals & Automotive
- Public Services & Education
- Retail
- Consumer Packaged Goods
- Travel, Transport, Logistics
- Telecom, Infrastructure, Media and Entertainment & Semiconductors

Apart from those services company offers the following horizontal services.

- Extended Enterprise Solutions
- Web Commerce Solutions
- Business Intelligence Services
- Quality Consulting
- Strategic Outsourcing Services
- Industry Native Solutions

- Business Services Group - BSG (BPO)
- Engineering Services
- Product management

Partnership & Merger

Feb 11, 2010, Mahindra Satyam, has entered into a partnership with the Integr8 Group, Africa's largest privately owned ICT service and solutions provider.

In case of Inorganic growth, Mahindra Satyam's proposed merger with Tech Mahindra may be delayed all because of legal issues, and ambiguity over jurisdiction between investigating agencies and the government. The merger has been delayed due to two tax cases pending with the Income Tax claiming over Rs 2700 crore for both.

Big turnaround of the company

The company had reported a consolidated net loss of Rs 233.3 crore for the July– September quarter of 2010. Even though the company got 245 crores profit in Q4 for 2010-2011, but due to outside payments nearly 570 crores for SEK,UNIPAID and Class Action Suit in Q4 (Total 641 crores for the year 2010-2011),the company had reported a consolidated net loss of Rs 327 crore for the Jan-Mar quarter of 2010-2011. IT firm Mahindra Satyam today posted a consolidated net profit of Rs 225.2 crore for the quarter ended June 30, 2011. During the quarter, the company added 2,172 people (net), taking total headcount to 31,438 as of June 30, 2011.

Capital Structure of Mahindra Satyam

Share Capital

The paid up share capital stands at Rs 2,353 Million as on March 31, 2011 compared to Rs 2,352 Million as on March 31, 2010. The increase of Rs 1 Million during the year is due to conversion of options into shares by employees under various Associate Stock Option Schemes (ASOPs). Here is the year wise capital structure of the company from 2000.

Table 01 : Capital Structure of Mahindra Satyam							
Period		Instrument	Authorized Capital	Issued Capital	P A I D U P		
From	To		(Rs. cr)	(Rs. cr)	Shares (nos)	Face Value	Capital
2010	2011	Equity Share	280	235.3		2	235.3
2009	2010	Equity Share	280	235.24	1176185762	2	235.24
2008	2009	Equity Share	280	134.78	673894792	2	134.78
2007	2008	Equity Share	160	134.1	670479293	2	134.1
2006	2007	Equity Share	160	133.44	667196009	2	133.44
2005	2006	Equity Share	75	64.89	324449539	2	64.89
2004	2005	Equity Share	75	63.85	319265291	2	63.85
2003	2004	Equity Share	75	63.25	316251710	2	63.25
2002	2003	Equity Share	75	62.91	314542800	2	62.91
2001	2002	Equity Share	75	62.91	314540000	2	62.91
2000	2001	Equity Share	75	56.24	281190000	2	56.24

Total income

Total income decreased to Rs 50,660 Million in the current year from Rs 51,134 Million in the previous year thereby leading to a decrease of Rs 474 Million.

IT Services Revenues

Revenues from IT services of Rs 47,414 Million (Rs 50,904 Million for FY 2009-10) comprises of revenue from Overseas / Exports market Rs 45,294 Million (Rs 48,558 Million for FY 2009-10) and from domestic market of Rs 2,120 Million (Rs 2,346 Million for FY 2009-10). The software revenue mix based on various parameters is as follows.

Table 02: Segmental Revenue				
Rs in Million				
	31.03.2011		31.03.2010	
Offshore	21761	45.90%	24,491	48.11%
Onsite/offsite	25653	54.10%	26,413	51.89%
Total	**47414**	**100%**	**50904**	**100%**

Profit and loss account

The debit balance in profit and loss account of Rs 23,346 Million at the beginning of theyear was further increased to Rs 24,622 Million for the year ending March 31, 2011 dueto the loss of Rs 1,276 Million for the year ending March 31, 2011.

Table 03: Profit & Loss Account as on 31.03.2011		
	31.03.2011	**31.03.2010**
Income		
Income from Operations	47,761	51,005
Other Income	2,899	129
	50,660	**51,134**
Expenditure		
Personnel Expenses	32,920	36,648
Operating and Administration Expenses	10,084	8,705
Provision for Diminution in the Value of Long Term Investments	393	
	43,397	**45,353**
PBDIT	**7,263**	**5,781**
Interest and Financing Charges	92	254
Depreciation / Amortization	1,499	1,908
	1591	2162

Table 03: Profit & Loss Account as on 31.03.2011		
	31.03.2011	**31.03.2010**
PBEI&T	**5,672**	**3,619**
Less: Exceptional item	6,411	4,169
Loss before tax	**-739**	**-550**
Less: Income Tax -	537	143
Fringe Benefit Tax		19
Net (Loss) for the Year	**-1,276**	**-712**

Table 04: Balance Sheet as on 31.03.2011		
	Rs in Million	
Source of Fund	**31.03.2011**	**31.03.2010**
Shareholders' Funds		
Share Capital	2,353	2,352
Share Application Money Pending Allotment		1
Reserves and Surplus	43,881	43,963
	46,234	**46,316**
Loan Funds		
Secured Loans	315	420
SUB TOTAL	**46,549**	**46,736**
Amounts Pending Investigation Suspense Account	12,304	12,304
TOTAL	**58,853**	**59,040**
Application of Fund		
Fixed Assets		
Gross Block	20,204	18,189

Table 04: Balance Sheet as on 31.03.2011		
	Rs in Million	
Less: Accumulated Depreciation / Amortization	14,067	12,859
Net Block	6,137	5,330
Capital Work-in-Progress	2,683	3,730
	8,820	**9,060**
Investments	5,321	7,266
Current Asset		
Inventories	592	
Sundry Debtors	11,127	8,505
Cash and Bank Balances	26,498	20,920
Other Current Assets	3,655	4,717
Loans and Advances	3,319	3791
	45191	**37933**
Current Liability		
Current Liabilities	14,686	7,890
Provisions	10,415	10,675
	25,101	**18,565**
Net Current Assets	**20,090**	**19,368**
Debit Balance in Profit and Loss Account	24,622	23,346
SUB TOTAL	**58,853**	**59,040**
Difference	0	0

Note:

Secured Loans

The secured loan balance as at March 31, 2011 is Rs 315 Million as compared to Rs 420 Million as at March 31, 2010. The decrease of Rs 105 Million over

the previous period is primarily due to repayment of the finance lease obligations during the year. This decrease is partially offset by increase on account of new car leases entered into by the Company during the current year. No other loans were taken during the current year.

Questions

Prepare

i. Cash from Operation

ii. Cash Flow Statement for the year ended 31.03.2011

iii. Fund Flow Statement for the year ended 31.03.2011

Case 5 Re: Cash Management System

Traditionally having a paper-based clearing system involving not only high processing cost but security risk, cash management in India has certainly undergone a paradigm change. From a product-centric approach, the focus for almost all banks today has shifted emphatically to the customer. And success is all about bringing the maximum possible delivery channels to the prospect's doorstep.

In the rapidly transforming world of business, banking faces its biggest challenge yet - constant change. With every bank seeming to offer service possible, efficiency coupled with innovative value added solutions have emerged as the key business differentiators that affect a bank's bottom line. Confronted with shrinking deposits/margins, rising customer expectations and intensifying competition, banks must at all times strive to be a step ahead of industry standards. At the same time, they cannot lose sight of credit risk, a natural byproduct of the increasingly complex relationships in today's dynamic markets.

For some time now, technology has been the key driving force behind every successful bank. In such an environment, the ability to recognize and capture market share depends entirely on the bank's competence to evolve technically and offer the customer a seamless process flow. The objective of a cash management system is to improve revenue, maximize profits, minimize costs and establish efficient management systems to assist and accelerate growth.

Today a corporate treasurer’s dilemma is multifaceted. With more movement towards the regional/central liquidity management in the complex structure of rules and regulations, further complication is caused by taxation issues. What a corporate treasurer needs as VOC - Visibility of funds, optimized returns on funds, and Control over receivables and payables. Treasury can face a number of issues related to the slow movement of funds, locked working capital, loss of float income, high cost of funds, time consuming reconciliation and manual processes. In India the cash management business primarily involves collections and payments services.

Cash Management in India

Products offered by banks under collections (paper and electronic):

- Local cheque collections.
- High value (0 Day clearing).
- Magnetic ink character recognition (MICR) (three day clearing of Cheques). Outstation cheque collections Cheques drawn on branch locations.
- Cheques drawn on correspondent bank locations. Cheques drawn on coordinator locations.
- House cheque collections.
- Outside network cheque collections. Cash collections.
- ECS-Debit.
- Post dated cheque collections. Invoice collections.
- Capital market collections.

Products offered by banks under payments (paper and electronic):

- Demand drafts/bankers cheques.
- Customer cheques.
- Locally payable.
- Payable at par.
- RTGS/NEFT/ECS.
- Cash disbursement.
- Payments within bank.
- Capital market payments.

The Reserve Bank of India (RBI) has placed an emphasis on upgrading technological infrastructure. Electronic banking, cheque imaging, enterprise resource planning (ERP), real time gross settlement (RTGS) is just few of the new initiatives.

The evolution of payment systems such as RTGS has posed some tough challenges for cash management providers. It is important that banks now look towards a shift to fees from float although all those cash management providers who have factored in float money in their product pricing might take a hit. But of course there are opportunities also attached like collection and disbursal of payments on-line across the banks.

There are a number of regulatory and policy changes that have facilitated an efficient cash management system (CMS). Fox example, the Enactment of Information Technology Act gives legal recognition to electronic records and digital signatures. The establishment of the Clearing Corporation of India in order to establish a safe institutional structure for the clearing and settlement of trades in foreign exchange (FX), money and debt markets has indeed helped the development of financial infrastructure in terms of clearing and settlement. Other innovations that have supported in streamlining the process are:

Introduction of the Centralized Funds Management Service to facilitate better management of fund flows.

Structured Financial Messaging Solution, a communication protocol for intra-bank and interbank messages.

Evolution of Services

One of the emerging cash management services in India is payment outsourcing. Though cheques and drafts are a popular mode of payment in India, it is obviously a time consuming procedure because of the manual processing required. This is an area where payment outsourcing can help. It allows corporates to reduce their overheads and focus on their core competencies and, as a result, benefit from speed and accuracy. The enhanced security it offers also allows for tighter fraud control. For the Indian payment system to become completely seamless there are many variables that need to be tackled, such as regulatory and legal issues, customer behaviour and infrastructure. As more corporates and banks have added technology to their processes, the issues surrounding connectivity security have become much important.

Today, treasurers need to ensure that they are equipped to make the best decisions. For this, it is imperative that the information they require to monitor risk and exposure is accurate, reliable and fast. A strong cash management solution can give corporates a business advantage and it is very important in executing the financial strategy of a company. The requirement of an efficient cash management solution in India is to execute payments, collect receivables and managing liquidity. Traditional or e-business objectives, in India there are different cash management solutions.

Cash Management Solutions Offered in India

Account reconciliation services

Balancing a cheque book for a very large business can be quite a difficult process. Banks have developed a system to overcome this issue. They allow companies to upload a list of all the cheques whereby at the end of the month, the bank statement will show not only the cleared cheques but also uncleared ones.

Positive pay

An effective anti-fraud measure for cheque disbursements. Using the cheque issuance data, updated regularly with cheque issuance and payment, the bank balances all cheques offered for payment. In the case of any discrepancies, the cheque is reported as an exception and is returned.

Balance reporting services

Balance reporting provides help in procuring a company's current banking information from its accounts. With this service the banks can offer almost all types of transaction- specific details on activities related to payment like deposits, cheques, wire transfers etc. It also helps in an effective and efficient management of regular cash flow.

Lockbox

Facilitates the cash improvement where, instead of being delivered to business address, customer payments are delivered to a special post office (PO) box. It is only the customers' payments that are delivered in the PO box and the company's own bank collects the amount and delivers them to the banks of the customers. The bank of the customers opens and processes the payments for direct deposit to the bank account. Lockbox contents regularly removed and processed.

Questions

1. Explain the trend of cash management system in India.
2. 'In India the cash management business primarily involves collections and payments services'. Explain
3. State the products offered by banks under collections (paper and electronic) and also state the products offered by banks under payments (paper and electronic).
4. State the difference between traditional system and modern system of cash management apart from focus and techniques.
5. Explain briefly the cash management solutions offered in India. What was the role of RBI in relation thereto?

Case 6 Re: Inventory Management System of Wal-Mart

Wal-Mart Increases its Supplier's Inventory Levels

Most notably, Wal-Mart's JIT efforts are leaving their suppliers with more inventories. At the same time, they do not want backorders. The only way to do this is to be able to replenish their stock at a moment's notice. So what does this do to their suppliers?

According to Logistics Management, it shoots supplier's inventories straight up. The demands that Wal-Mart places on its suppliers are incredible because of the power Wal-Mart places on its suppliers. Suppliers are forced to hold incredible safety stocks to make sure they can satisfy Wal- Mart's demands.

Basically, the suppliers don't have a choice in the matter. Wal-Mart's business, even with the demands on service, is too good to pass up. But, Wal-Mart is not about to have a stock out due to some supplier's inability to provide a 99% service level. Wal-Mart, like many huge companies, will not wait. Many companies are requiring shorter lead times even as more companies implement 'zero tolerance' policies for late shipments.

Zero tolerance is a hell of a statement from a company that knows service level. To provide even a 97% service level compared to a 95% service can result in a huge increase in inventory. Zero-tolerance is wild. In fact it is actually impossible. No matter what a company holds in inventory, there is always the possibility that Wal-Mart could order one more than that. Couple this with a shorter lead time to Wal-Mart and inventories are staggering.

Wal-Mart is ordering fewer cases more frequently. For a company, this means that they can either produce smaller batches, or hold onto more inventories. Because if a company cannot produce less and faster, than they have to produce a large amount and then, instead of producing a large amount and getting rid of it all at once, they have to get rid of it slowly over time, which increases average inventory. While Wal-Mart may be getting the good end of the deal, one thing is for sure, there's a reason suppliers put up with these demands, and it's not because the business with Wal-Mart is bad.

Questions

1. Explain Wal-Mart's JIT efforts.
2. How does Wal-Mart increase average inventory?
3. Illustrate the concept of 'Zero tolerance'.
4. 'Wal-Mart is ordering fewer cases more frequently' Explain

Case 7 Re: Debtors Management System –Debt recovery procedure

A. EDF Energy, one of the largest energy companies in the UK

EDF Energy is one of the largest energy companies in the UK, generating around seven per cent of the UK's electricity, and employing nearly 13,000 people. Over a quarter of the UK population depends on EDF Energy for their electricity. One of the less glamorous but nevertheless vital tenets of this huge business is debt collection.

The telephone has proven to be an effective method for collecting this debt, as it offers immediacy and implicitly demands a response in a way that a written reminder cannot hope to do. By linking the psychology of the phone call into the efficiencies offered by a quality dialler, EDF Energy saw the potential benefits available.

The Challenge

EDF Energy had historically used outbound agents to manually call customers by sifting through paperwork so the dialler was seen as a way of cutting down the processing time and enabling greater management control over the calls being made.

The Solution

Thanks to an existing relationship with Rostrvm Solutions and proof that its dialler could cope with the volume, it was installed in 2003 at EDF Energy's site in Exeter. "We ran it for a year and it quickly proved its worth," explains Kevin McKay, outbound dialing team manager at EDF Energy. "Since then we have significantly increased the volumes of customers we are contacting through the dialer and the results have been very encouraging. Rostrvm Solutions Limited is an innovative UK- based company that designs, develops and supports software applications for the call centre and back office process management and reporting. When you ring a customer just after they have received their traditional reminder, there's up to a 40 per cent success rate of making contact and conducting a debt collection transaction and implicitly demands a response in a way that a written reminder cannot hope to do Proactive contact.

The Results

Kevin says the goal here is to increase cash flow, secure customer future usage

and avoid the need for any further debt collection activity. The signs are good. "Agents are collecting substantial values per month in hard cash via debit card or completing a direct debit over the phone. If we waited for a response from a paper based reminder, we could wait a week, 14 days, or longer." With a greater understanding of the times when these calls are most effective, EDF Energy have been able to recruit additional staff to further improve performance and fully utilize desk space at traditionally quieter times in the office. There are plans within EDF Energy to further develop the scope of the outbound dialer within its collections function and as Kevin describes "the quality of the **rostrvm** product and support given by the **rostrvm** team fully fits EDF Energy's needs".

B. Citibank Code for collection of dues & Repossession of Security

The GCB India Collections Code outlines minimum requirements that need to be adhered by the Citibank N.A. / authorized representative when contacting a customer for due payments. These requirements are also aligned to the minimum standards of banking practices for banks set by BCSBI (The Banking Code and Standards Board of India).

TCS Ltd is the authorized entity responsible for contacting customers on behalf of Citibank N.A. Besides TCS Ltd other Third Party Vendors may also contact Customers on behalf of Citibank N.A. The code is a mandatory requirement for all individuals/ persons/ vendors/ entities who contact the Customer(s) on behalf of Citibank N.A. This document contains material proprietary to Citibank NA. Duplication and dissemination either in part or in full, without authorization is prohibited.

Citibank's policy of treating debtors and managing debt collection

All Customers (including Customers who are late in paying or in default) must be treated with respect, dignity, courtesy and fairness in debt collection efforts. Citibank believes this is not only the right thing to do, but also the most effective.

It is imperative that all persons involved in collection related activities follow this policy. All Customer Assistance Specialists (CAS) must strictly agree to abide by this policy described below prior to beginning collection activities with respect to the Customers. This policy applies to all employees of Citigroup including TCS Ltd and/or other affiliates and employees/agents of companies

that may be retained to collect on consumer debts on behalf of Citibank NA in India.

Failure to comply will result in disciplinary action and may result in permanent termination of employment and or business with TCS Ltd / Citibank NA.

The following are the core underpinnings of the collection process. These are an extract of the Citibank collection values.

1. **Customers deserve to be treated with dignity.** Customer Assistance Specialists should always remain professional during telephone conversations and visits. No written or verbal threats, abuse or rudeness is permitted. Customer Assistance Specialists should use only acceptable business language, even if the other party does not.
2. **Customer Assistance Specialists deserve to be treated with dignity.** They may refer the customer to management, or end calls when a customer becomes abusive or threatening. Customers should be informed prior to termination of such calls. All calls where the customer becomes abusive or threatening should be appropriately documented.
3. All calls being made to the Customer(s) must be recorded as per requirements of the Code of Conduct stipulated by the Reserve Bank of India. No calls may be made by any of the Agents unless there is recording facility for the same, especially by Customer Assistance Specialists from their individual mobile phones unless they said call is absolutely necessitated for checking on the availability of the Customers or for directions to the location of the Customers". Customer Assistance Specialists should always identify themselves and the company/entity that they represent at the very beginning of every interaction with customers and the Customers must be informed that the call is being recorded.
4. Customers are entitled to privacy. Privacy policies apply to all conversations with third parties, as stipulated in this document. The Customers must be informed that their call is being recorded. Unrecorded calls to Customers are to be avoided.
5. All collection activities should be consistent with the guidelines provided in this document and in compliance with the Code for

collections of dues stipulated (from time to time) by the Reserve Bank of India. All letters, telegrams and other communication must be in the format approved by compliance and/or Citibank legal counsel.

6. Customers should be called only between **0700 Hrs and 1900 Hrs** unless exceptional circumstances described in this Code warrant deviation from this timeframe. Under no circumstances, customer can be called beyond 2100hrs.
7. Customers should be called no more often than is reasonable in the context of the debt, and the conversations logged on the system and the convenience of the Customer(s) to talk, should be enquired at the beginning of each call.
8. Customer requests that calls/visits to place of work be stopped are to be honored if he/she provides a suitable alternate where he/she may be reached during collection working hours. Such customers should be asked to provide an alternate address/phone number where they may be reached.
9. Customer's questions should be answered in full. They should be provided with information requested, given assistance and issues resolved. Accounts with unresolved issues are to be escalated to management.
10. Customer or third party requests for supervisor names or requests to speak with supervisor should always be honoured.
11. Customer Assistance Specialist notes on the collection system should be clear, concise, accurate and free of editorial comments. All attempts, contacts, conversation and actions are to be noted on the collection system.

Why you may contact a customer

A customer is to be contacted for debt collection only under the following circumstances:

- When not contacting the Customer may lead to the imposition of an additional cost on the customer or may impact the customer's credit history/rating – e.g. customer spending pattern indicates that the customer may be about to breach his/her credit line;
- When the customer has not paid on payment date (including grace days)

and this is likely to impact the customer's credit history and/or is likely to cause a financial loss to Citibank.

When you may contact a customer

It has been Citibank's experience in India that individuals with full-time employment routinely are awake by 06:00 Hrs in order to be at their jobs at the time required.

Accordingly calls must normally be limited from 0700 Hrs to 1900 Hrs. A customer may be contacted beyond 1900hrs till 2100hrs on:

1. Phone, if customer has not been contactable within last 48hrs.
2. On personal visit, if the customer has been non contactable during last two visits.

Questions

1. Explain Rostrvm Solutions.
2. Explain the debt collection procedure of EDF Energy.
3. How EDF Energy did get their success in debt collection?
4. Explain the possible best policy for treating the debtors.
5. Illustrate Citibank's policy of treating debtors and managing debt collection.
6. What may be the core programmes of the collection process if the debt cannot be collected deven after the reminders?

APPENDIX

APPENDIX A

TABLES

Table I: Future Value Interest Factor

Period, *n*	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	1.010	1.020	1.030	1.040	1.050	1.060	1.070	1.080	1.090	1.100	1.110	1.120	1.130	1.140
2	1.020	1.040	1.061	1.082	1.102	1.124	1.145	1.166	1.188	1.210	1.232	1.245	1.277	1.300
3	1.030	1.061	1.093	1.125	1.158	1.191	1.225	1.260	1.295	1.331	1.368	1.405	1.443	1.482
4	1.041	1.082	1.126	1.170	1.216	1.262	1.311	1.360	1.412	1.464	1.518	1.574	1.630	1.689
5	1.051	1.104	1.159	1.217	1.276	1.338	1.403	1.469	1.539	1.611	1.685	1.762	1.842	1.925
6	1.062	1.126	1.194	1.265	1.340	1.419	1.501	1.587	1.677	1.772	1.870	1.974	2.082	2.195
7	1.072	1.149	1.230	1.316	1.407	1.504	1.606	1.714	1.828	1.949	2.076	2.211	2.353	2.502
8	1.083	1.172	1.267	1.369	1.477	1.594	1.718	1.851	1.993	2.144	2.305	2.476	2.658	2.853
9	1.094	1.195	1.305	1.423	1.551	1.689	1.838	1.999	2.172	2.358	2.558	2.773	3.004	3.252
10	1.105	1.219	1.344	1.480	1.629	1.791	1.967	2.159	2.367	2.594	2.839	3.106	3.395	3.707
11	1.116	1.243	1.384	1.539	1.710	1.898	2.105	2.332	2.580	2.853	3.152	3.479	3.836	4.226
12	1.127	1.268	1.426	1.601	1.796	2.012	2.252	2.518	2.813	3.138	3.498	3.896	4.335	4.818
13	1.138	1.294	1.469	1.665	1.886	2.133	2.410	2.720	3.066	3.452	3.883	4.363	4.898	5.492
14	1.149	1.319	1.513	1.732	1.980	2.261	2.579	2.937	3.342	3.797	4.310	4.887	5.535	6.261
15	1.161	1.346	1.558	1.801	2.079	2.397	2.759	3.172	3.642	4.177	4.785	5.474	6.254	7.138
16	1.173	1.373	1.605	1.873	2.183	2.540	2.952	3.426	3.970	4.595	5.311	6.130	7.067	8.137
17	1.184	1.400	1.653	1.948	2.292	2.693	3.159	3.700	4.328	5.054	5.895	6.866	7.986	9.276
18	1.196	1.428	1.702	2.026	2.407	2.854	3.380	3.996	4.717	5.560	6.544	7.690	9.024	10.575
19	1.208	1.457	1.754	2.107	2.527	3.026	3.617	4.316	5.142	6.116	7.263	8.613	10.197	12.056
20	1.220	1.486	1.806	2.191	2.653	3.207	3.870	4.661	5.604	6.728	8.062	9.646	11.523	13.743
24	1.270	1.608	2.033	2.563	3.225	4.049	5.072	6.341	7.911	9.850	12.239	15.179	18.790	23.212
25	1.282	1.641	2.094	2.666	3.386	4.292	5.427	6.848	8.623	10.835	13.585	17.000	21.231	26.462
30	1.348	1.811	2.427	3.243	4.322	5.743	7.612	10.063	13.268	17.449	22.892	29.960	39.116	50.950
40	1.489	2.208	3.262	4.801	7.040	10.286	14.974	21.725	31.409	45.259	65.001	93.051	132.782	188.884

Table II: Present Value Interest Factor

Period, *n*	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.769
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675
4	0.961	0.924	0.889	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519
6	0.942	0.888	0.838	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218	0.188	0.163	0.141	0.123
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198	0.170	0.146	0.125	0.108
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180	0.153	0.130	0.111	0.095
19	0.828	0.686	0.570	0.475	0.396	0.331	0.276	0.232	0.194	0.164	0.138	0.116	0.098	0.083
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104	0.087	0.073
24	0.788	0.622	0.492	0.390	0.310	0.247	0.197	0.158	0.126	0.102	0.082	0.066	0.053	0.043
25	0.780	0.610	0.478	0.375	0.295	0.233	0.184	0.146	0.116	0.092	0.074	0.059	0.047	0.038
30	0.742	0.552	0.412	0.308	0.231	0.174	0.131	0.099	0.075	0.057	0.044	0.033	0.026	0.020
40	0.672	0.453	0.307	0.208	0.142	0.097	0.067	0.046	0.032	0.022	0.015	0.011	0.008	0.005

Table III: Future Value of an Annuity Interest Factor

Period, n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	2.010	2.020	2.030	2.040	2.050	2.060	2.070	2.080	2.090	2.100	2.110	2.120	2.130	2.140
3	3.030	3.060	3.091	3.122	3.152	3.184	3.215	3.246	3.278	3.310	3.342	3.374	3.407	3.440
4	4.060	4.122	4.184	4.246	4.310	4.375	4.440	4.506	4.573	4.641	4.710	4.779	4.850	4.921
5	5.101	5.204	5.309	5.416	5.526	5.637	5.751	5.867	5.985	6.105	6.228	6.353	6.480	6.610
6	6.152	6.308	6.468	6.633	6.802	6.975	7.153	7.336	7.523	7.716	7.913	8.115	8.323	8.536
7	7.214	7.434	7.662	7.898	8.142	8.394	8.654	8.923	9.200	9.487	9.783	10.089	10.405	10.730
8	8.286	8.583	8.892	9.214	9.549	9.897	10.260	10.637	11.028	11.436	11.859	12.300	12.757	13.233
9	9.369	9.755	10.159	10.583	11.027	11.491	11.978	12.488	13.021	13.579	14.164	14.776	15.416	16.085
10	10.462	10.950	11.464	12.006	12.578	13.181	13.816	14.487	15.193	15.973	16.722	17.549	18.420	19.337
11	11.567	12.169	12.808	13.486	14.207	14.972	15.784	16.645	17.560	18.531	19.561	20.655	21.814	23.044
12	12.683	13.412	14.192	15.026	15.917	16.870	17.888	18.977	20.141	21.384	22.713	24.133	25.650	27.271
13	13.809	14.680	15.618	16.627	17.713	18.882	20.141	21.495	22.953	24.523	26.212	28.029	29.985	32.089
14	14.947	15.974	17.086	18.292	19.599	21.051	22.550	24.215	26.019	27.975	30.095	32.393	34.883	37.581
15	16.097	17.293	18.599	20.024	21.579	23.276	25.129	27.152	29.361	31.772	34.405	37.280	40.417	43.842
16	17.258	18.639	20.157	21.825	23.657	25.673	27.880	30.324	33.003	35.950	39.190	42.753	46.672	50.980
17	18.430	20.012	21.762	23.698	25.840	28.213	30.840	33.750	36.974	40.545	44.501	48.884	53.739	59.118
18	19.615	21.412	23.414	25.645	28.132	30.906	33.999	37.450	41.301	45.599	50.396	55.750	61.725	68.394
19	20.811	22.841	25.117	27.671	30.539	33.760	37.739	41.446	46.018	51.159	56.939	63.440	70.749	78.969
20	22.019	24.297	26.870	29.778	33.066	36.786	40.995	45.762	51.160	57.275	64.203	72.052	80.947	91.025
24	26.973	30.422	34.426	39.083	44.502	50.816	58.117	66.765	76.790	88.497	102.174	118.155	136.831	158.659
25	28.243	32.030	36.459	41.646	47.727	54.865	63.249	73.106	84.701	98.347	114.413	133.334	155.620	181.871
30	34.785	40.568	47.575	56.085	66.439	79.058	94.461	113.283	136.308	164.494	199.021	241.333	293.199	356.787
40	48.886	60.402	75.401	95.026	120.080	154.762	199.635	259.057	337.882	442.593	581.826	767.091	#####	#####

Table IV: Present Value of an Annuity Interest Factor

Period, n	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974	2.914
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433
6	5.795	5.601	5.417	5.242	5.076	4.917	4.766	4.623	4.486	4.355	4.231	4.111	3.998	3.889
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.946
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426	5.216
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687	5.453
12	11.255	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918	5.660
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122	5.842
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628	6.302	6.002
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462	6.142
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.312	7.824	7.379	6.974	6.604	6.265
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120	6.729	6.373
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250	6.840	6.467
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366	6.938	6.550
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.128	8.514	7.963	7.469	7.025	6.623
24	21.243	18.914	16.936	15.247	13.799	12.550	11.469	10.529	9.707	8.985	8.348	7.784	7.283	6.835
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077	8.422	7.843	7.330	6.873
30	25.808	22.397	19.600	17.292	15.373	13.765	12.409	11.258	10.274	9.427	8.694	8.055	7.496	7.003
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.779	8.951	8.244	7.634	7.105

APPENDIX B GLOSSARY OF FINANCIAL TERMS

Accrued interest – The interest due on a bond since the last interest payment was made.The buyer of the bond pays the market price plus accrued interest.

Acquisition – The acquiring of control of one corporation by another. In "unfriendly" takeover attempts, the potential buying company may offer a price well above current market values, new securities and other inducements to stockholders. The management ofthe subject company might ask for a better price or try to join up with a third company.

American Depositary Receipt (ADR) – a security issued by a U.S. bank in place of the foreign shares held in trust by that bank, thereby facilitating the trading of foreign sharesin U.S. markets.

Amortization – Accounting for expenses or charges as applicable rather than as paid. Includes such practices as depreciation, depletion, write-off of intangibles, prepaid expenses and deferred charges.

Annual report – The formal financial statement issued yearly by a corporation. The annual report shows assets, liabilities, revenues, expenses and earnings - how the company stood at the close of the business year, how it fared profit-wise during the year,as well as other information of interest to shareowners.

Arbitrage – A technique employed to take advantage of differences in price. If, for example, ABC stock can be bought in New York for $10 a share and sold in London at

$10.50, an arbitrageur may simultaneously purchase ABC stock here and sell the same amount in London, making a profit of $.50 a share, less expenses. Arbitrage may also involve the purchase of rights to subscribe to a security, or the purchase of a convertiblesecurity – and the sale at or about the same time of the security obtainable through exercise of the rights or of the security obtainable through conversion.

Assets – Everything a corporation owns or that is due to it: cash, investments, money due it, materials and inventories, which are called current assets; buildings and machinery, which are known as fixed assets; and patents and goodwill, called intangible assets.

Balance sheet – A condensed financial statement showing the nature and amount of a company's assets, liabilities and capital on a given date. In dollar

amounts, the balancesheet shows what the company owned, what it owed and the ownership interest in the company of its stockholders.

Bear – Someone who believes the market will decline. Bear market – A declining market.

Bearer bond – A bond that does not have the owner's name registered on the books of the issuer. Interest and principal, when due, are payable to the holder.

Bid and Asked – Often referred to as a quotation or quote. The bid is the highest price anyone wants to pay for a security at a given time, the asked is the lowest price anyonewill take at the same time.

Block – A large holding or transaction of stock – popularly considered to be 10,000shares or more.

Blue chip – A company known nationally for the quality and wide acceptance of itsproducts or services, and for its ability to make money and pay dividends.

Blue Sky Laws – A popular name for laws various states have enacted to protect the public against securities frauds. The term is believed to have originated when a judgeruled that a particular stock had about the same value as a patch of blue sky.

Bond – A bond is evidence of a debt on which the issuing company usually promises to pay the bondholders a specified amount of interest for a specified length of time, and to repay the loan on the expiration date. In every case a bond represents debt - its holder is acreditor of the corporation and not a part owner, as is the shareholder.

Book value – An accounting term. Book value of a stock is determined from a company'srecords, by adding all assets then deducting all debts and other liabilities, plus the liquidation price of any preferred issues. The sum arrived at is divided by the number of common shares outstanding and the result is book value per common share. Book value of the assets of a company or a security may have little relationship to market value.

Broker – An agent who handles the public's orders to buy and sell securities, commodities or other property. A commission is charged for this service.

Bull – One who believes the market will rise. Bull market – An advancing market.

Buy side – The portion of the securities business in which institutional orders originate.

Callable – A bond issue, all or part of which may be redeemed by the issuing corporation under specified conditions before maturity. The term also applies to preferred shares that may be redeemed by the issuing corporation.

Capital gain or capital loss – Profit or loss from the sale of a capital asset. The capital gains provisions of the tax law are complicated. You should consult your tax advisor for specific Information.

Capital stock – All shares representing ownership of a business, including preferred and common.

Capitalization – Total amount of the various securities issued by a corporation. Capitalization may include bonds, debentures, preferred and common stock, and surplus. Bonds and debentures are usually carried on the books of the issuing company in terms of their par or face value. Preferred and common shares may be carried in terms of par or stated value. Stated value may be an arbitrary figure decided upon by the director or may represent the amount received by the company from the sale of the securities at the time of issuance.

Cash flow – Reported net income of a corporation plus amounts charged off for depreciation, depletion, amortization, and extraordinary charges to reserves, which are bookkeeping deductions and not paid out in rupees.

Certificate of deposit (CD) – A money market instrument characterized by its set date of maturity and interest rate. There are two basic types of CDs: traditional and negotiable. Traditional bank CDs typically incur an early-withdrawal penalty, while negotiable CDs have secondary market liquidity with investors receiving more or less than the original amount depending on market conditions.

Collateral – Securities or other property pledged by a borrower to secure repayment of a loan.

Commercial paper – Debt instruments issued by companies to meet short-term financing needs.

Commission – The broker's basic fee for purchasing or selling securities or property as an agent.

Commission broker – An agent who executes the public's orders for the purchase or saleof securities or commodities.

Common stock – Securities that represent an ownership interest in a corporation. If the company has also issued preferred stock; both common and preferred have ownership rights. Common stockholders assume the greater risk, but generally exercise the greater control and may gain the greater award in the form of dividends and capital appreciation.The terms common stock and capital stock are often used interchangeably when the company has no preferred stock.

Consolidated balance sheet – A balance sheet showing the financial condition of acorporation and its subsidiaries.

Convertible – A bond, debenture or preferred share that may be exchanged by the ownerfor common stock or another security, usually of the same company, in accordance withthe terms of the issue.

Coupon bond – Bond with interest coupons attached. The coupons are clipped as theycome due and presented by the holder for payment of interest.

Current assets – Those assets of a company that are reasonably expected to be realized incash, sold or consumed during one year. These include cash, U.S. Government bonds, receivables and money due usually within one year, as well as inventories.

Current liabilities – Money owed and payable by a company, usually within one year. Dealer – An individual or firm in the securities business who buys and sells stocks andbonds as a principal rather than as an agent. The dealer's profit or loss is the differencebetween the price paid and the price received for the same security. The dealer's confirmation must disclose to the customer that the principal has been acted upon. The same individual or firm may function, at different times, either as a broker or dealer.

Debenture – A promissory note backed by the general credit of a company and usuallynot secured by a mortgage or lien on any specific property.

Debit balance – In a customer's margin account, that portion of the purchase price ofstock, bonds or commodities that is covered by credit extended by the broker to the margin customer.

Delayed opening – The postponement of trading of an issue on a stock exchange beyond the normal opening of a day's trading because of market conditions that have been judged by exchange officials to warrant such a delay. Reasons for the delay might be an influx ofeither buy or sell orders, an imbalance of buyers and sellers, or pending corporate news that requires time for dissemination.

Depletion accounting – Natural resources, such as metals, oil, gas and timber, that conceivably can be reduced to zero over the years, present a special problem in capital management. Depletion is an accounting practice consisting of charges against earnings based upon the amount of the asset taken out of the total reserves in the period for whichaccounting is made. A bookkeeping entry, it does not represent any cash outlay nor are any funds earmarked for the purpose.

Depreciation – Normally, charges against earnings to write off the cost less salvage value,of an asset over its estimated useful life. It is a bookkeeping entry and does not represent any cash outlay nor are any funds earmarked for the purpose.

Discount – The amount by which a preferred stock or bond may sell below its par value.Also used as a verb to mean "takes into account" as the price of the stock has discountedthe expected dividend cut.

Diversification – Spreading investments among different types of securities and variouscompanies in different fields.

Dividend – The payment designated by the board of directors to be distributed pro rata among the shares outstanding. On preferred shares, it is generally a fixed amount. On common shares, the dividend varies with the fortunes of the company and the amount ofcash on hand, and may be omitted if business is poor or the directors determine to withhold earnings to invest in plant and equipment. Sometimes a company will pay a dividend out of past earnings even if it is not currently operating at a profit.

Dollar-cost-averaging – A system of buying securities at regular intervals with a fixed dollar amount. Under this system investors buy by the dollars' worth rather than by the number of shares. If each investment is of the same number of dollars, payments buy more shares when the price is low and fewer when it rises. Thus temporary downswingsin price benefit investors if they continue

periodic purchases in both good and bad times,and the price at which the shares are sold is more than their average cost. Dollar-cost-

averaging does not assure a profit and does not protect against loss in declining markets. Since dollar-cost averaging involves continuous investment in securities regardless of fluctuating price levels of such securities, investors should consider their financial abilityto continue purchases through periods of low price levels

Dow theory – A theory of market analysis based upon the performance of the Dow JonesIndustrial Average and transportation stock price averages. The theory says that the market is in a basic upward trend if one of these averages advances above a previous important high, accompanied or followed by a similar advance in the other. When both averages dip below previous important lows, this is regarded as confirmation of a downward trend. The Dow Jones is one type of market index.

Earnings report – A statement, also called an income statement, issued by a company showing its earnings or losses over a given period. The earnings report lists the incomeearned, expenses and the net result.

Equity – The ownership interest of common and preferred stockholders in a company. Also refers to excess of value of securities over the debit balance in a margin account. Ex-dividend – A synonym for "without dividend." The buyer of a stock selling ex- dividend does not receive the recently declared dividend. When stocks go ex-dividend,the stock tables include the symbol "x" following the name.

Ex-rights – Without the rights. Corporations raising additional money may do so by offering their stockholders the right to subscribe to new or additional stock, usually at adiscount from the prevailing market price. The buyer of a stock selling ex-right is not entitled to the rights.

Face value – The value of a bond that appears on the face of the bond, unless the value is otherwise specified by the issuing company. Face value is ordinarily the amount the issuing company promises to pay at maturity. Face value is not an indication of market value. Sometimes referred to as par value.

Fixed charges – A company's fixed expenses, such as bond interest, which it has agreed to pay whether or not earned, and which are deducted from income before earnings on equity capital are computed.

Floor – The huge trading area - about the size of a football field - where stocks, bonds and options are bought and sold on the New York Stock Exchange.

Floor broker – A member of the stock exchange who executes orders on the floor of the Exchange to buy or sell any listed securities.

Free and open market – A market in which supply and demand are freely expressed in terms of price. Contrasts with a controlled market in which supply, demand and price may all be regulated.

Funded debt – Usually interest-bearing bonds or debentures of a company. Could include long-term bank loans. Does not include short-term loans, preferred or common stock.

Gilt-edged – High-grade bond issued by a company that has demonstrated its ability to earn a comfortable profit over a period of years and pay its bondholders their interest without interruption.

Growth stock – Stock of a company with a record of growth in earnings at a relatively rapid rate.

Holding company – A corporation that owns the securities of another, in cases with minimum 51% voting control.

Hypothecation – The pledging of securities as collateral - for example, to secure the debit balance in a margin account.

Income bond – Generally income bonds promise to repay principal but to pay interest only when earned. In some cases unpaid interest on an income bond may accumulate as a claim against the corporation when the bond becomes due. An income bond may also be issued in lieu of preferred stock.

Index – A statistical yardstick expressed in terms of percentages of a base year or years. An index is not an average.

Institutional investor – An organization whose primary purpose is to invest its own assets or those held in trust by it for others. Includes pension funds, investment companies, insurance companies, universities and banks.

Investment – The use of money for the purpose of making more money, to gain income, increase capital, or both.

Investment banker – Also known as an underwriter. The middleman between

the corporation issuing new securities and the public. The usual practice is for one or moreinvestment bankers to buy outright from a corporation a new issue of stocks or bonds. The group forms a syndicate to sell the securities to individuals and institutions.

Investment bankers also distribute very large blocks of stocks or bonds - perhaps held byan estate.

Liabilities – All the claims against a corporation. Liabilities include accounts, wages and salaries payable; dividends declared payable; accrued taxes payable; and fixed or long- term liabilities, such as mortgage bonds, debentures and bank loans.

Liquidation – The process of converting securities or other property into cash. The dissolution of a company, with cash remaining after sale of its assets and payment of allindebtedness being distributed to the shareholders.

Liquidity – The ability of the market in a particular security to absorb a reasonable amount of buying or selling at reasonable price changes. Liquidity is one of the mostimportant characteristics of a good market.

Listed stock – The stock of a company that is traded on a securities exchange.

Load – The portion of the offering price of shares of open-end investment companies in excess of the value of the underlying assets. Covers sales commissions and all other costsof distribution. The load is usually incurred only on purchase, there being, in most cases, no charge when the shares are sold (redeemed).

Yield to maturity – The yield of a bond to maturity takes into account the price discountfrom or premium over the face amount. It is greater than the current yield when the bondis selling at a discount and less than the current yield when the bond is selling at a premium.

Zero coupon bond – A bond that pays no interest but is priced, at issue, at a discount fromits redemption price.

APPENDIX C : Calculation of NAV of Mutual Funds

NAV (Net Asset Value)

Whenever we buy open ended mutual fund units, the number of units we get for our investment, is calculated based on Net Asset Value (NAV) of the fund. Similarly when we sell our units the amount to be returned to us is calculated based on NAV. NAV is the fund's share price. NAV is actually NAV per unit but every one use the term NAV as a short form. NAV is the Net Assets of the fund per number of units outstanding. It is calculated by the below formula:

$$\frac{\text{M.V. of the investments + Receivables + Other Accrued Income + Other assets – Accrued Expenses –Other Payables – Other liabilities}}{\text{(Current value of the fund portfolio)}}$$

$$\text{No. of units outstanding as on the NAV date}$$

M.V. of investment → closing price of the securities/debentures as per last trading

Accrued Income = Dividends and Interests to be received

Other Assets = Cash, Cash equivalents

If NAV value of a scheme is high it does not mean that the unit is over priced. In case of open ended mutual funds, they actually reflect the market price of the fund's assets at premium not at discount.

Problem 1. Suppose there are 3 investors in a mutual fund – X, Y and Z

X had invested Rs. 25000

Y had invested Rs. 35000

Z had invested Rs. 40000

The mutual fund company had decided to initially issue shares (units) at Rs. 100 each. Now, suppose the fund manager had invested Rs. 30000 in Company 1, Rs. 30000 in Company 2 and Rs. 40000 in Company 3. After 1 year, the value of investment in Company 1 has become Rs. 50000, in Company 2 Rs. 20000 and in Company 3 Rs. 50000.

Calculate (a) NAV per share (NAV)

(b) Value of each investor's portfolio

(c) Rate of return on investment after 1 year

Solution Workings: Initial corpus of the mutual fund = Rs (25000+35000+40000)

= Rs. 100000

X has got MF units = 25000 ÷ 100 = 250

Y has got MF units = 35000 ÷ 100 = 350Z

has got MF units = 40000 ÷ 100 = 400

1000 units at Rs. 100 each

Total value of the mutual fund portfolio = Rs. (50000+20000+50000) = Rs. 120000

$$\text{(a) NAV per share} = \frac{\text{Current value of the fund portfolio}}{\text{No. of Funds units}} = \frac{\text{Rs. } 120000}{1000} = \text{Rs. } 120$$

(b) Value of Investment's portfolio: NAV of each unit X No. of units held by that investor

Value of X's portfolio = Rs. 120 X 250 = Rs. 30000

Value of Y's portfolio = Rs. 120 X 350 = Rs. 42000

Value of Z's portfolio = Rs. 120 X 400 = Rs. 48000

$$\text{(c) Rate of return on investment after 1 year} = \frac{120000 - 100000}{100000} 100$$

$$= \frac{20000}{100000} \text{X } 100$$

= 20 %

Problem 2. A mutual fund owns 400 shares of an MNC1 Company, **cur**rently trading at Rs. 450 and 400 shares of MNC2, currently trading at Rs. 4250. The fund has 500 shares outstanding.

(a) What is the NAV of the fund?

(b) If investors expect the price of MNC1 company's shares to increase to Rs. 650 and the price of MNC2 shares to decrease to Rs. 4000 by the end of the year, whatis the expected NAV at the end of the year? Is there any decline in the expected NAV price? If so, what is the percentage of decline?

(c) Assume that expected price of the MNC1 shares is realized at Rs. 650, what is the maximum price decrease that one can occur to the MNC2 shares to realize an end-of-year NAV equal to the NAV estimated in (a)?

Hints

$$\text{(a) NAV of the fund} = \frac{(400 \text{ X Rs. } 450 + 400 \text{ X Rs. } 4250)}{500} = \frac{180000 + 1700000}{500}$$

$$= \frac{\text{Rs. } 1880000}{500} = \text{Rs. } 3760/\text{share}$$

$$\text{(b) Expected NAV} = \frac{(400 \text{ X Rs. } 650 + 400 \text{ X Rs. } 4000)}{500} = \frac{260000 + 1600000}{500}$$

=

$$\text{(c)} \quad \frac{400 \text{ X } 650}{500} + \frac{400 \text{ X } Pm}{500} = 3760$$

Or, Pm = Rs. 4050/share, a decline of Rs. 200 – in compare to Rs. 4250/share

Open-ended and Close-ended funds

Open-ended funds allow shares to be purchased and redeemed according to investor's demand. The NAV of open-ended funds is determined only by changes in the value of the assets owned. In close-ended funds, the number of shares of the fund is fixed. If investors need to redeem their shares, they sell them to another investor. Thus the demand for the fund shares can provide another source of return for the investors as the market price of the fund may exceed the NAV of the fund. Close-ended funds, such as real estate investment trusts, tend to be more specialized.

Problem 1. Open-ended fund A owns 100 shares of Company1 valued at Rs. 100 each and 50 shares of Company2 valued at Rs. 50 each. Close-ended fund B owns 75 shares of Company1 and 100 shares of Company2. Each fund has 100 shares of stock outstanding.

(a) What are the NAVs of both funds using these prices?

(b) Assume that in one month the price of Company1 stock has increased to Rs. 105 and the price of Company2 stock has decreased to Rs. 45. How do these changes impact the NAV of both funds? If the funds purchased at the NAV prices in (a) and sold at month-end, what would be the realized returns on the investments?

(c) Assume that another 100 shares of Company1 are added to Fund A, what is the effect on fund A's NAV if the stock prices remain unchanged from the original prices?

Solution

$$\text{(a) NAV (open-ended)} = \frac{100 \text{ X Rs.}100 + 50 \text{ X Rs. } 50}{100} = \text{Rs. } 125$$

$$\text{NAV (close-ended)} = \frac{75 \text{ X Rs.}100 + 100 \text{ X Rs. } 50}{100} = \text{Rs. } 125$$

$$\text{(b) NAV (open-ended)} = \frac{100 \text{ X Rs.}105 + 50 \text{ X Rs. } 45}{100} = \text{Rs. } 127.50$$

$$\text{\% Change in NAV} = \frac{\text{Rs. } 127.50 - \text{Rs. } 125.00}{125.00} \times 100 = 2\%$$

$$\text{NAV (close-ended)} = \frac{75 \times \text{Rs.}105 + 100 \times \text{Rs. } 45}{100} = \text{Rs. } 123.75\%$$

$$\text{\% Change in NAV} = \frac{\text{Rs. } 123.75 - \text{Rs. } 125.00}{125.00} \times 100 = -1\%$$

(c) $$\text{NAV (open-ended)} = \frac{200 \times \text{Rs.}100 + 50 \times \text{Rs. } 50}{100} = \text{Rs. } 225.00$$

REFERENCES

1. *Lysiak, L., Masiuk, I., Chynchyk, A., Yudina, O., Olshanskiy, O. and Shevchenko, V., 2022. Banking Risks in the Asset and Liability Management System. Journal of Risk and Financial Management, 15(6), p.265.*
2. *Wuave, T., Yua, H. and Yua, P.M., 2020. Effect of liquidity management on the financial performance of banks in Nigeria. European journal of business and innovation research, 8(4), pp.30-44.*
3. *Rathod, H.S., Chauhan, R., Huda, M. and Maseleno, A., 2020. A Conceptual Research Study on Identification of Biases with towards Assets Allocation and Portfolio Management of Investors. European Journal of Molecular & Clinical Medicine, 7(10), pp.985-994.*
4. *Adrian, M.T. and Griffoli, M.T.M., 2019. The rise of digital money. International Monetary Fund.*
5. *Sethi, N., 2019. Merchant banking and its function: A Review. Think India Journal, 22(4), pp.1017-1022.*
6. *Hartana, H., 2019. Initial Public Offering (Ipo) Of Capital Market And Capital Market Companies In Indonesia. Ganesha Law Review, 1(1), pp.41-54.*
7. *Eleftheriou, M. and Müller-Plantenberg, N.A., 2018. The purchasing power parity fallacy: Time to reconsider the PPP hypothesis. Open Economies Review, 29(3), pp.481-515.*

8. *Nan, Z. and Kaizoji, T., 2019. Bitcoin-based triangular arbitrage with the Euro/US dollar as a foreign futures hedge: modeling with a bivariate GARCH model. Quantitative Finance and Economics, 3(2), pp.347-365.*
9. *Pham, D., Nguyen, T., Pham, T.M. and Adhikari, H., 2021. Corporate divestiture decisions and long-run performance. Journal of Behavioral Finance, 22(2), pp.126-140.*
10. *Davidson III, W., 2018. Financial forecasting and decision making. John Wiley & Sons.*
11. *Mayakkannan, R., 2020. Impact On Emerging Challenges Of Micro Finance In India. Mukt Shabd.*
12. *Shah, D., Isah, H. and Zulkernine, F., 2018, December. Predicting the effects of news sentiments on the stock market. In 2018 IEEE International Conference on Big Data (Big Data) (pp. 4705-4708). IEEE.*
13. *Osayi, V.I., Kasimu, A. and Nkwonta, H.C., 2018. Financial market derivatives and the performance of deposit money banks in Nigeria. International Journal of Economics, Commerce and Management, 6(11), pp.382-396.*

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