KINGDOM OF SAUDI ARABIA
Ministry of Higher Education
KING ABDULAZIZ UNIVERSITY

Teaching Corporate Finance

from an Islamic Perspective

Dr. Mohammed Obaidullah
Associate Professor
Islamic Economic Research Centre
King Abdulaziz University
Jeddah, Kingdom of Saudi Arabia

1428 A.H. / 2007 A.D.

FOREWORD

Islamic Economics Research Center organizes, on a periodical basis, meetings of the chairmen of the Departments of Economics and Islamic Economics in which issues related to teaching syllabus of Islamic Economics in the Kingdom and outside the Kingdom are discussed.

The last of such meetings was held during Dhu'l-Qa`dah 14-15, 1427 AH, corresponding 5-6, December 2006, in which problems of "Teaching Corporate Finance from Islamic Perspective" were discussed. Dr. Mohammed Obaidullah, a researcher at the Center, was assigned to prepare a monograph on teaching this course which was sent to various Departments and discussed in the said forum.

It is a matter of pleasure for the Center to present these notes to a wider circle of concerned teachers. We expect that they will find them helpful in teaching the subject.

It is Allah Who grants favor.

Dr. Abdullah Qurban Turkistani
Director
Islamic Economics Research Centre

PREFACE

This monograph aims to tie together many of the important ideas in modern corporate finance and explores how these could be presented from an Islamic perspective. Courses in corporate finance in universities across the globe are a significant component of graduate programs in business administration, finance and economics. Invariably, corporate finance figures in their curriculum as a *core* course. In this monograph we focus on the ideas and concepts that form part of a *core* course in corporate finance.

In order to make it simple for an instructor attuned to teaching corporate finance at Business Schools, we follow a structure similar to most standard textbooks on the subject. The following popular texts in this field are worth mentioning:

1. Brealey, Richard A. and Stewart C. Myers, *Principles of Corporate Finance*, 6th Edition, Mcgraw Hill, 2004

2. Ross, Westerfield and Jordan, *Essentials of Corporate Finance*, 4th Edition, Mcgraw Hill Irwin, 2004

3. Brigham, Eugene F. and Joel F. Houston, *Fundamentals of Financial Management*, 8th Edition, The Dryden Press, 1998

4. Brigham, Eugene F. and Louis C. Gapensky, *Financial Management: Theory and Practice*, 6th Edition, The Dryden Press, 1991

While the coverage in some of the texts may be broader, we have made an attempt to deal with all the major ideas and concepts, keeping in mind the latest contribution of Islamic scholars to the field. To our mind, teaching corporate finance is likely to be quite challenging for an instructor for the simple reason that there is a dearth of literature on the concepts and issues covered therein. There is no published text as yet dealing with this subject from an Islamic perspective and we had to rely mostly on rare published articles and papers in various journals in order to cull together some relevant ideas and concepts. Some of the ideas and concepts are entirely original, and are being presented for the first time by the author. The only exceptions to the rule have been the chapters on Sources of Funds. There is fortunately no dearth of books,

monographs and articles on Islamic banks, financial institutions and markets. In this monograph, I have presented some material from my own text, *Islamic Financial Services*, published by the Islamic Economics Research Center in a summarized form in chapters 6 and 7. Instructors may relate the contents of these two chapters with relevant sections from this book. An online version of this book is available for free download at the website of the Centre.

We have opted for brevity wherever we find that the materials presented in conventional textbooks are in the nature of tools of analysis, theories that do not need any adaptation in the light of Islamic principles, numerical examples and empirical evidence. In order to avoid duplication, we advise the Instructor to follow the relevant contents from the mainstream textbooks. Wherever ideas and concepts presented require review, comments and modification in the light of Islamic principles, we have attempted to elaborate and accommodate available thoughts in the matter in this monograph.

I am much beholden to Dr. Abdullah Qurban Turkistani, Director and to all my colleagues at the Islamic Economics Research Centre for being a constant source of encouragement in this endeavor.

I would like to put on record my special thanks and appreciation for all my students of Corporate Finance whose penetrating questions and lively participation helped me gain understanding of the concepts I was trying to teach. I would like to put on record my special thanks and appreciation for Br. Azad Ali of IBF Net, who helped me design the layout and draw the diagrams with his excellent MSWORD skills, and for Br. Syed Anwer Mahmood of the Islamic Economics Research Centre for producing the manuscript in camera-ready format.

CONTENTS

1. The Firm and the Financial Manager

This is usually the introductory session on the subject in which the instructor provides the students with an overview of the field of corporate finance. The session offers a brief explanation on corporations, financial managers and the financial decision making process. Specifically, the instructor discusses the advantages and disadvantages of organizing a business as a corporation; the role of the financial manager in a corporation; and the various types of financial decisions impinging on the health of the firm.

1.1. Organizing a Business

The choice of business organization affects the risk and the potential return and thus, the value of the business. The instructor may discuss here the modern forms of business organization, such as, sole proprietorship, partnership, limited partnership and corporation. It should be noted that these are similar in many ways to the forms of organization found in classical Islamic jurisprudence, such as, *mudaraba*, *musharaka* or a combination thereof. The corporation is a modern innovation and the views of scholars regarding legality of this form from an Islamic point of view may be presented briefly to the students. The discussion should also involve a comparison of various business organizational forms in terms of (i) the exposure or risks of personal assets from a business venture - limited or unlimited liability; (ii) the ease and cost of organization and maintenance of the business organization; (iii) the expected life of the business under each form or business organization; (iv) the relative tax exposure of the earnings of the business and (v) the relative ease of raising capital in financial markets.

1.1.1. Sole Proprietorship

The sole proprietor business blends the personal and business assets of the individual toward a business venture. The sole proprietor incurs unlimited liability (exposure of personal assets to business obligations), limited life, business and personal income/assets are viewed by taxing authorities as one, and because of these risks, has considerable difficulty raising funds in financial markets.

1.1.2. Partnership

A partnership is an agreement of sole proprietors to pool their assets and talents in a business. Like the sole proprietorship, partners are exposed to unlimited liability, limited life of the business, business income is combined with personal income for tax purposes; unlike a sole proprietorship, more than one person is involved, and thus, more capital may be raised in financial markets. Modern partnerships have a parallel in classical musharaka and mudaraba.

1.1.2.1. *Mudaraba*

It is generally understood by almost all the schools of Islamic jurisprudence as a contract between at least two parties whereby one party, called the investor (*rabb al-mal*) entrusts funds to the other party called the agent-manager (*mudarib*) who is to invest the funds in a venture and manage the same in an agreed manner. The *rabb-al-mal* is the owner of the capital and the assets. The *mudarib* is responsible for the management of the business and provides professional, managerial and technical expertise for initiating and operating the business enterprise or project. Profit is shared according to a pre-agreed ratio. Losses if any are entirely absorbed by the capital provider. *Mudaraba* may be of two types – restricted or unrestricted. In a restricted *mudaraba* (*mudaraba* al-*muqayyada*) the financier may specify a particular business in which investments may be undertaken. *Mudaraba* may also be an unrestricted one (*mudaraba al-mutlaqa*); in which case the *mudarib* may invest the capital provided in any business he deems fit. *Mudaraba* is also known as *muqarada* or *qirad*. In a *nudaraba*, the division of profits between the two parties must necessarily be on a proportional basis and cannot be lump sum or a guaranteed return. In a valid *mudaraba* the *rabb al-mal* is not liable for losses beyond the amount of the capital he has paid. Conversely the *mudarib*, who does not normally partake in the investment in terms of money, does not bear any share of the losses, losing only his time and effort.

1.1.2.2. *Musharaka*

Musharaka refers to the commingling of funds for the purpose of sharing in profits. *Musharaka* partnerships are of two types: holding partnership and contract partnership. A holding partnership is created by means of inheritance of will or other similar circumstances. As a result, two or more persons end up holding an asset jointly. In a holding partnership two or more persons share in a real asset and in the returns arising there from. A contract partnership is created by means of an agreement whereby two or more persons agree that each of them contributed to the capital of the partnership and shares in its profit or loss. Contract partnerships are of several forms. Out of these, the *al-anan* partnership seems to have wider acceptance and usage. *Al-anan* is a contract approved by all jurists, where each of the parties contributes a portion of the overall fund and participates in work. There is difference of opinion, on whether the profits and losses are to be shared in the same proportion as that of capital contribution or as agreed upon. Hanafis and Hanbalis allow preference in profits. In other words, profits may be shared between the parties in a mutually agreed ratio, which may or may not be equal to the ratio of their respective contribution to the capital. This is so, because, in addition to capital, the contribution of the parties in terms of managerial inputs is equally important and may vary from one project to another. Losses however, are strictly to be shared according to the capital contribution ratio, as it is indicative of their respective loss-bearing abilities. Malikis and Shafis make the acceptance of this type of partnership conditional on profits and losses being proportionate to the size of contributions to the overall fund because (according to them) profit in this type of partnership is considered to be return on capital.

1.1.2.3. Combination of *Mudaraba-Musharaka*

Often a *mudaraba* may be combined with *musharaka*. In such a facility the *mudarib*-entrepreneur contributes to the capital of the venture, as does the *rabb-al-maal*-financier. Like any other *mudaraba* the *mudarib*-entrepreneur is solely responsible for the management of the business and the financier is purely a sleeping partner. The catch here is: the ratio of profit share for a pure financier (who does not participate in the management and operations of the business) is capped at or cannot exceed the ratio of its contribution to capital of the venture.

1.1.2.4. Declining *Musharaka*

A declining *musharaka* is a recent innovation. Its popularity originates from the fact that classical *musharaka* has permanent partners in the venture. This may not be a desirable idea for a party, say a venture capitalist. Such a

partner likes liquidity in its investments or at least a finite maturity of its investments. In a declining *musharaka*, one partner's share in the equity is diminished each year through partial return of capital. The partner receives periodic profits based on its reduced equity share that remains invested during the period. The share of the other partner in the capital steadily increases over time, ultimately resulting in complete ownership of the venture.

1.1.3. Corporation

A corporation is a legal entity separate from its owners called shareholders. The legal entity concept causes the corporation to differ considerably from the sole proprietorship and partnership: corporations are taxable entities, have perpetual lives, and are able to combine the capital of many shareholders, have greater organizational and legal costs, but are more likely to raise capital in financial markets. Shareholder owners have limited liability, or their personal assets are free from the obligations of the corporations, and shareholders are more inclined to invest in riskier asset ventures to create value. Shareholders vote for the board of directors, who in turn, appoint senior management, creating a separation of ownership and management of the business. In a small, closely held business, the owner, board member and manager/worker may be the same person or family, while larger, corporations, with professional boards and management may have a broad base of shareholders or be known as public companies.

1.1.4. *Mudaraba, Musharaka* and Corporation: Comparison

Mudaraba and *musharaka* are forms of partnership that involve sharing of returns and risks. Returns may accrue in the form of periodic profits and change in the value of the assets. An important feature of *mudaraba* is a pre-agreed ratio in which profits are to be distributed between the financier and the entrepreneur-*mudarib*. It rules out any allocation of profits in absolute terms other than as per the agreed ratio. The same holds good for *musharaka* as well. Losses in a *mudaraba* are completely absorbed by the financier. The *mudarib*-entrepreneur is liable to bear losses, however, if such losses are the outcome of his managerial negligence or misconduct. In *musharaka* however, both the parties share in the losses in the ratio of their investment in the project.

Mudaraba also provides for limited liability for the financier in line with the modern corporation. The liability of the financier is limited to its investment in the project. This is quite rational and fair, since the financier does not participate in the managerial decision-making and cannot be held responsible for the risks created by the *mudarib*-entrepreneur. *Musharaka* on the other hand, involves unlimited liability of the partners, as both the parties are decision-

makers in the business. Therefore, if the liabilities of the business exceed its assets and the business goes into liquidation, all the exceeding liabilities shall be borne *pro rata* by the partners. Regarding change in the value of assets created under *mudaraba*, the *mudarib*-entrepreneur can neither benefit nor lose because of such change. Such gains or losses accrue solely to the financier. In *musharaka*, however, such gains or losses in the value of assets financed by the joint pool of funds rightly accrue to both the parties.

A feature of the classical *mudaraba* and *musharaka* is that either of the parties to the agreement have an option to terminate the agreement or withdraw from the venture any time they deem fit. Liquidity of investments is thus ensured for the partners. On the date of termination, profits are determined as the excess of the liquidated value of all assets over investment. Once profits are so determined, these are distributed between the parties according to the agreed ratio. This however, is somewhat problematic for projects that require a certain minimum time period before coming to fruition. It is also problematic in case of projects that are "going concerns". Withdrawal of a partner from the project may have material consequences for the project. At the same time, the partners need to be provided with liquidity of their investments in the project. Therefore, modern day scholars have devised the concept of "constructive liquidation" which may be practiced with the mutual consent of all parties. The concept implies that the Net Asset Value of the venture may be calculated at periodic intervals by subtracting all liabilities from the asset value. An investor or partner would now be allowed to liquidate its investment at this value.

The modern corporation retains many of the features of the above forms of partnership.[1] It is similar to a *musharaka* as it involves commingling of funds from multiple capital providers with assignment of managerial responsibility in a mutually agreed fashion. However, it also differs from classical *musharaka* in several important ways. In a *musharaka*, the liability of capital providers is unlimited where as a modern corporation is an independent legal entity with limited liability. It may be noted that Islamic law provides for limited liability to the capital provider in case of a *mudaraba*, perhaps because there is a complete separation between ownership and management of the company. All managerial decisions (with potential financial implications) are taken by the manager-*mudarib* and the capital-provider should not be held liable (beyond what it has contributed to the company) for actions of the manager-*mudarib*. A similar situation prevails with respect to large modern corporations, which are also characterized by a separation between ownership and management of the company. The feature of independent legal entity is also not alien to Islamic law and exists in case of a *waqf*. Together with limited liability, this feature

facilitates the raising of capital with much greater ease as compared to partnerships[2].

1.1.5. Separation of Ownership and Agency Problems

In some of the forms of organization highlighted above there is a separation of ownership from management. The manager acts as an agent of the owner-principal. Such cases are said to involve agency problems because of a possibility that the agent-manager may not act in the best interests of the owner-principal. Among *mudaraba*, *musharaka* and the modern corporation, the former is particularly criticized as involving severe agency problems. While the fund-provider (*rabb-ul-mal*) bears all the losses in case of a negative outcome, it may not be in a position to oblige the manager (*mudarib*) to take the appropriate action or exert the required level of effort needed to generate the expected level of returns. The manager (*mudarib*) can exploit such situations. Also, the fund-provider (*rabb-ul-mal*) does not have the right to monitor or to participate in management of the project and hence may loose its principal investment in addition to its potential profit share if the project shows a loss. Further, the agent-manager (*mudarib*) may have incentives to expand the expenditures on the projects and to increase the consumption of non-pecuniary benefits at the expense of pecuniary returns since the increased consumption is partly borne by the principal (*rabb-ul-mal*) while the benefits are entirely consumed by the agent-manager (*mudarib*). The agency problems would be reduced in *musharaka* where the capital of the partner (*musharik*) will also be at stake. Furthermore, equity partnership would minimize the problem of informational asymmetry as all partners would have the right to participate in the management of project in which they are investing. However, the *musharaka* organization loses its attraction from the standpoint of fund-providers because of unlimited liability of all partners.

A modern corporation ensures limited liability for fund-providers and hence makes it easier to raise funds as compared to *musharaka*. Agency problems exist in case of a modern corporation too, but are far lower than the case of *mudaraba*. In case of a corporation shareholders are concerned that managers may not work for maximizing shareholders' wealth and work for their own interests. Agency problems exist when managers, as agents of shareholders, have a conflict of interest with shareholders. Compensation plans motivate managers to work for their own best personal interest and the best interest of the shareholders, thus resolving some agency problems. The board of directors, elected by shareholders, oversees and at times, interferes, if managers do not act in the best interest of shareholders. Managers whose company does not perform in the best interest of shareholders are candidates for a takeover by a new investor group. Every public company and its managers are scrutinized

and monitored by stock analysts. This specialist monitoring tends to focus managers on value creation.

1.2. The Role of the Finance Manager

The primary function of the finance manager or financial decision-maker is to raise funds in financial markets (the financing decision), to invest funds (capital budgeting or investment decision), to generate funds from efficient operations, and to allocate funds generated for reinvestment or to pay cash dividends (dividend decisions). The finance manager raises funds in financial markets by selling financial assets or securities to investors. Funds are invested in, in the case of manufacturing firms, in real assets, or physical assets used to produce goods and services.

We discuss investment decisions in Chapter 5, financing decisions in Chapter 8 and the process of raising funds from financial institutions and markets in Chapters 6 and 7 respectively.

1.2.1. Goals of the Firm and the Finance Manager

Conventional finance assumes that the goal of a firm and hence, of the finance manager is to maximize wealth of its owner-shareholders. Shareholder wealth is maximized when market value of the firm is maximized. Thus, shareholders want managers to make decisions that would maximize market value of firm. Making decisions that maximize market value focuses the manager on expected cash flows from investments, the timing of the cash flows, and the variability or riskiness of those cash flows.

Traditional economics assumes that the goal of a firm is profit maximization. Other goals discussed are maximization of revenues and of market share. The instructor may draw a clear line of distinction between these objectives and demonstrate the difference (even though the variables may be correlated). Alternative decision criterion, such as profit or market share maximization does not achieve market value maximization. Making decisions based on profit maximization may focus on accounting income and not consider cash flow, is biased toward short run returns, perhaps ignoring the longer run implications of decisions, and ignores the relative riskiness of the alternatives.

1.2.2. Ethics, Stakeholders Interests and Management Objectives

Recent advances in conventional corporate finance highlight the importance of ethics and stress that pursuit of highest standards of ethical conduct need not be in conflict with the objective of shareholder wealth maximization. On the contrary, a focus on ethics helps creation of value in the

form of “reputational capital”. At the minimum, shareholders and the public are concerned that managers operate within the law and maintain the reputation and ethical good standing of the business. Fair and ethical relationships build and maintain long run value.

There are many diverse groups with a "stake" in well being of a business: managers, workers, suppliers, customers, government, shareholders, etc. These stakeholders' interest may conflict at times; managers must work to resolve these diverse interests.

The instructor may note here that conformity to ethics is *not* an option or a matter of choice for a firm in an Islamic economy. The finance manager must adhere to the Islamic norms of ethics as contained in the *Shariah*. Whether such adherence is value-enhancing or value-destroying is largely a matter of residual analysis. Available evidence, however, indicates a strong value-enhancing possibility for firms operating in Islamic societies. In a recent study on what should be contents of Vision-Mission-Goal (VMG) statements for Islamic financial institutions, respondents felt that *Shariah* compatibility and adherence to Islamic values must be entrenched in them with explicit reference to Islam and the values it promotes. While shareholder wealth maximization is recognized as a legitimate objective, it is of secondary importance. The statements explicitly recognize the interests of other stakeholders besides shareholders, such as, employees, customers, business allies. More importantly, they talk about duties and responsibilities as an Islamic corporate citizen, services to the Muslim community and the like. There is a frequent mention of bounds of *Shariah*, adherence to Islamic values and ethics, such as, trust, mutual respect and partnership[3].

End Notes:

1. For a detailed discussion on Islamic appraisal of the modern corporation, refer to Seif El-Din Tag El-Din, “The Stock-Exchange from an Islamic Perspective”, *Journal of King Abdulaziz University: Islamic Economics,* Vol. 8, pp. 29-48 (1416 A.H. / 1996 A.D).

2. For arguments in favor of the principle of limited liability and independent legal entity, see Justice Muhammad Taqi Usmani (1999), *An Introduction to Islamic Finance*, Idaratul Maarif, Karachi.

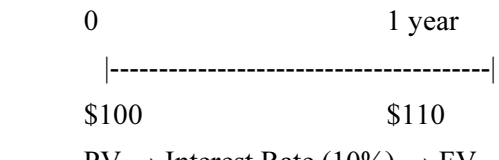
3. See Obaidullah, M. *Rating of Islamic Financial Institutions: Some Methodological Suggestions*, Islamic Economics Research Centre, King Abdulaziz University (forthcoming).

2. Time Value of Money

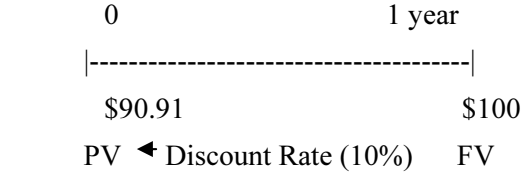
Time value of money is a cornerstone of modern finance. In simple terms, it means that money has a time value. $1000 today is not same as $1000 after one year. A rational individual would prefer the former to the latter. The reasoning goes like this. If he receives $1000 today, he can invest it at an interest rate of 10%. He would earn $100 as interest during the year. Therefore, $1000 today is equivalent to $1100 after one year when the interest rate is 10%. Money therefore, has a time value.

Instructors usually begin by asking these questions to students.

Suppose you invest $100 at 10% for one year. How much will you have at the end of one year?



Similarly, if you are receiving $100 one year from today, how much is it worth today?



Both the above illustrations may be extended beyond one year and the student is taught with multiple examples and exercises (i) how to determine value on a future date of some cash today or the process of compounding; and (ii) how to determine value today of some cash to be received later or the process of discounting. The trade-off between cash now and cash later is dependent on, among other things, the rate one can earn by investing. The future value of a cash flow is higher than its present value, given that the rate of compounding/ discounting or the time value of money is positive.

A student of Islamic finance is likely to be uncomfortable about the above discussion. The reason for such discomfort is the use of an interest rate in the equation. The instructor may demonstrate here that once the interest rate is replaced with a *halal* rate of return on investment the framework needs no further change. The numbers work as before. The instructor may now restate the concept in the following manner. Money has a time value. $1000 today is not same as $1000 after one year. A rational individual would prefer the former to the latter. If he receives $1000 today, and expects to earn a *halal* return of 10% during the next one year, he would be indifferent between $1000 today and $1100 after one year. The framework may be expanded as before to incorporate multiple time periods. The rate of compounding and discounting would now be dependent on the returns expected by the decision-maker from his available investment opportunities. This rate in conventional finance is referred to as "opportunity cost" of funds.

The concept of time value of money forms the basis of major financial decisions. From the above explanation it follows that cash flows occurring at different points in time are not comparable: they cannot be added or subtracted without computing their time-adjusted equivalent values. Since financial decisions usually involve comparison of cash inflows and cash outflows occurring at different points in time, these are adjusted for the timing differences before any comparison is undertaken. How to do this adjustment is something everyone needs to understand. This is a very basic business skill and it underlies the analysis of many different types of investments and financing arrangements.

Textbooks usually devote a chapter to familiarize the students with techniques of computing:

1. Future value of a present sum;
2. Present value of a future sum;
3. Future value of an annuity (a constant annual sum);
4. Present value of an annuity (a constant annual sum);

5. Future and present values with multi-period compounding and discounting;
6. Future and present values with continuous compounding and discounting.

Once the discomfort with interest rate is taken care of by replacing it with rate of return, the rest of the framework remains same and instructors would do well to impart the necessary skills in computation of the above with or without the use of tables (usually provided at the end of finance texts) or calculators.

2.1. Rationale Underlying the Concept

Several reasons are offered to explain the positive time value of money, some of which may be questionable.

First, a cash flow of $1000 *now* to an individual implies that he/ she can purchase and consume goods and services worth the amount now, while $1000 *tomorrow* would mean that he has to wait till tomorrow before he may consume. This postponement of consumption involves sacrifice and hence, the individual needs to be compensated for "waiting". One may note that the basis of this 'positive time preference' argument is weak. Arguably, individuals are concerned about consumption in "future" just as they are concerned about consumption now. When an individual consciously saves for the "rainy day" or to finance specific needs in future, such future consumption is more important than present consumption. Positive time preference is not a systematic human tendency (as, say, risk aversion), and is at best a hypothesis to be accepted or rejected on empirical grounds. To assume time preference to be always positive would lead to the bizarre conclusion that a man *who cannot invest* most of his salary (to guarantee higher consumption later) should consume it all on the first day of the month, nay, the first hour of that day! If we reflect on this extreme example it should provide many insights[1].

A second argument in favor of time value of money perhaps has greater merit. It asserts that an individual would prefer $100 *now* over $100 *tomorrow*, since he would now have the alternative of investing this amount for a day and earning a return on the same. Conventional finance conveniently uses the "rate of interest" as this rate of return. Since *riba* prohibition in Islamic finance rules out positive interest rate, does it imply zero time value of money? As stated earlier, time value of money indeed has a place in Islamic finance. The return available to the individual saver in the above example, need not relate to an interest or *riba*-based transaction. The return available on the next best

"permissible" investment (from trade or otherwise) constitutes time value of money in Islamic finance.

2.1.1. The Fallacy of Zero Time Value

The fallacy of "zero time value of money" would in fact lead to some erroneous conclusions. One, with "zero time value of money", the deferred price in a trade would always be same as the spot price. This is an anomaly.[2] In the Islamic framework a trade (with or without deferment of payment of price) is a risky and permissible investment. It is different from pure *riba*-based risk-free debt. A seller in a trade, whether on spot or deferred payment basis, is free to charge any price and the profit that accrues to him is legitimate. There is thus, a possibility that his "spot" price may be lower than his "deferred" price. Such price differential is obviously due to deferment and is deemed to be the time value of money. Such time value of money is acceptable in the Islamic framework. What is not permissible is the time value of money in the context of debt. Needless to say, when the buyer in the above deferred-payment sale decides to defer his payment beyond the due date for payment, neither he nor the seller is allowed to increase the price. In the eyes of the *Shariah* the buyer and seller are now the borrower and lender respectively. The price, therefore, cannot be increased since it is now in the nature of debt and a debt cannot be replaced by a higher or lower debt. A higher debt replacing a lower debt results in *riba* on the old debt.

End Notes:

1. For a forceful rejection of time preference as the basis of time value of money, see Zarqa, M.A. (1983) 'Project Evaluation in Islamic Perspective', in Z. Ahmad et al. (ed.), *Fiscal Policy and Resource Allocation in Islam*, Islamabad, Institute of Policy Studies.

2. For systematic *Shariah*-based arguments in favor of time value of money and the discrepancy between spot and deferred prices, see Ridha Saadallah (1994) 'Concept of Time in Islamic Economics', *Islamic Economic Studies*, Vol.2, No.1.

3. Risk and Return

3.1. Risk and Uncertainty

Future is uncertain. As the holy *Quran* states:

"Had I knowledge of the unseen, I should have abundance of wealth, and adversity would not touch me." (7:188)

"No soul knoweth what it will earn tomorrow. ..." (31:34)

These two Quranic verses, among several others, emphasize uncertainty about the future. Mainstream finance recognizes this fact too. Economic units when faced with uncertainty try to speculate, predict or understand the future with available information and available tools of processing such information. In the jargon of modern finance, the presence of relevant, even if incomplete, information to understand and assess the future, translates "uncertainty" into "risk". Rational decisions are made only in the light of information, or under conditions of risk. Further, it is also to be recognized that information is never complete and therefore, risk can only be estimated and cannot be computed. Rational decision-making is not possible when there is absolutely no information or no clue to the future, or under conditions of uncertainty.

Risk and uncertainty as discussed in modern finance may be compared with the notion of *gharar* in Islamic jurisprudence. Islamic law forbids transactions, which involve excessive *gharar*, translated more commonly as uncertainty and sometimes as risk. One interpretation of *gharar* is inaccuracy and inadequacy of information available with the either of the parties to a contract. Gross inadequacy of information about, say the objects of exchange, terms of exchange, invalidates a contract. Such cases are perceived to be

potential sources of conflict between the parties. Risk or uncertainty with future outcomes or cash flows in case of investments in physical assets, such as, through *mudaraba* and *musharaka*, is however, tolerated as long as the terms of association (such as, the sharing ratio) are clear to both parties, are in conformity with the *Shariah* and there is no potential source of conflict.

When a finance manager takes a decision to invest in physical or financial assets he must recognize the riskiness of the outcome, i.e. of cash inflows or of returns from investment, in addition to the outcome itself. Early finance texts however, made an important omission. The frameworks presented focused on returns/ rewards only and never considered risk as the second dimension to decision-making. Risk was explicitly incorporated into the framework of investment analysis as a later development. The Islamic framework however, always recognized the role of risk in financial matters by asserting that a party in a financial contract is entitled to returns, only if it bears risk.

3.2. Risk–Return Parity

The association between risk and return is central to Islamic finance. The maxim "*Al kharaj bi al daman*" underlies all forms of financial contracting in Islamic jurisprudence. The maxim, in simple terms, requires that benefits (returns) and liabilities (risk) go together. A logical reflection of this maxim is observed in the need to eliminate *riba* (the prohibition of positive returns on zero-risk assets); in the inadmissibility of a *shrikat* contract where either partner agrees to share in profits only, and not in losses; in the requirement that the lessor in an *ijara* contract, who is entitled to receive the rentals must bear the losses arising out of destruction of the asset. Thus a party in a financial contract in entitled to returns, only if it bears risk.

The following articles in Majalla[1] underscore this:

Art85: The benefit of a thing is a return for the liability for loss from that thing.

Art 86: Payment of hire and indemnity for loss do not go together.

The Majalla goes one step further and declares in Art 88: the burden is in proportion to the benefit and the benefit in proportion to the burden.

The above statement has profound implications. It recognizes risk-aversion and envisages risk-return parity in both normative and positive sense. We may interpret its implications for the finance manager in the following words:

1. Investment decisions: A project must fetch higher returns if it involves higher risk and vice versa. In other words, while ranking several projects, the manager must not only consider their future profitability, cash flows and returns, but also the risk associated with the returns. We consider this in greater detail in Chapter 5.
2. Financing decisions: The cost of a given source of funds would be more if it involves greater risk and vice versa. The cost of capital for the user of funds is the required rate of return by the supplier of funds and this would include compensation that commensurate the risk associated with their cash flows. We consider this in greater detail in Chapter 6.

Prior to this however, it would be useful to introduce the fundamentals of risk analysis. We opt for brevity when we present concepts that could be easily found in standard textbooks on corporate finance. The instructor must note that this is a very important chapter as it deals with portfolio theory and the capital asset pricing model. This is a difficult chapter and students find it hard to understand the concepts fully. We present them as simple statements in the following two parts and then move on to make some relevant comments from the Islamic perspective.

3.3. Portfolio and Capital Market Theory

1. All rational individuals dislike risk and try to minimize the same. As stated above *risk aversion* as a natural human tendency is duly recognized in the Islamic framework and risk reduction is in line with Islamic rationality.
2. Diversification presents a natural way of reducing risk. This explains why no investor "puts all his eggs in one basket" and invests in a portfolio.
3. How many assets constitute a well-diversified portfolio? According to available empirical evidence, in financial markets, assets numbering just thirty may capture all the risk-reducing benefits of diversification.
4. Investors like returns; they try to maximize returns.
5. Investors choose an optimal combination of assets that maximizes their expected return for a given level of risk, or minimizes risk for a given level of expected return.
6. For the entire market or economy, all efficient portfolios (of risky assets) are located on the Efficiency Frontier (EF). An efficient portfolio is defined as one that is not *dominated* by any other portfolio. A portfolio dominates another portfolio when it provides higher returns for same level of risk or provides same level of returns for a lower risk.

The EF is the contribution of the famous portfolio theory as developed by the financial economist Harry Markowitz.

7. The introduction of a risk-free asset brings in additional efficiency and allows the investors to consider superior portfolios combining risk-free asset and a single market portfolio (of risky assets). The locus of these portfolios is called Capital Market Line and it dominates the Efficiency Frontier. The CML is the contribution of the famous capital market theory as developed by the financial economist William Sharpe.
8. The introduction of investor utility curves allows choice of an optimal portfolio for a given investor.

The Markowitz Portfolio Theory and Sharpe Capital Market Theory are diagrammatically explained in diagram 3.1. EF is the Efficiency Frontier that traces all efficient portfolios. The Capital Market Line (CML) is R_FOM that is tangential to EF at point M. Therefore point M on both CML and EF is the market portfolio. The investor would maximize its utility by choosing a portfolio O on the CML. This is the point of tangency between CML and investor utility indifference curve.

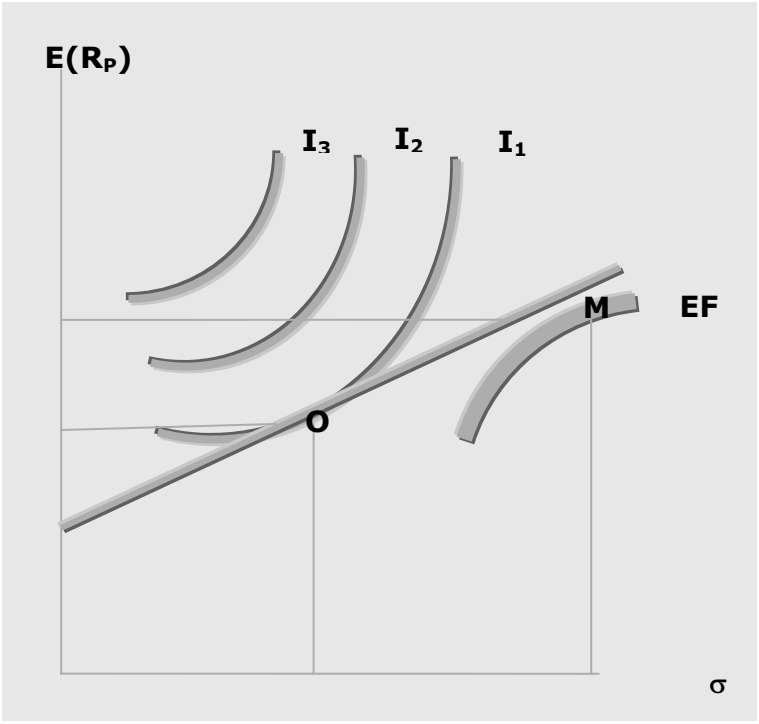


Figure 3.1. Portfolio Optimization in Conventional Markets.

3.3.1. Portfolio Theory and CML from an Islamic Perspective

How relevant is the above framework from an Islamic perspective? Obviously there is need for some modification. To begin with we present the modified framework as suggested by a couple of recent studies and then venture with our own framework.

Some scholars (Naqvi, 1986) were quick to note that there is no risk-free asset RF in an Islamic economy.2 The principle of *riba* prohibition would naturally rule out any positive returns when there is no risk. As a result there would be no CML. The market would comprise risky assets (similar to equity) only and the investor would have to make a choice from the efficient portfolios along the EF only. The choice of a given investor would now be determined by the point of tangency between EF and investor's utility indifference curve. The result would be a loss of welfare, since the investor would now operate at a lower indifference curve. This possibility is presented in diagram 3.2. This conclusion was challenged by Tag El-Din (1991) who noted that the conclusion about loss of welfare was dependent on the assumption of convexity of investor's utility indifference curve. Convexity assumption itself was based on many restrictive assumptions and was probably used for pragmatic reasons to yield a computationally convenient portfolio selection model. Therefore, the hypothesis of welfare loss under Islamic framework was fallacious[3].

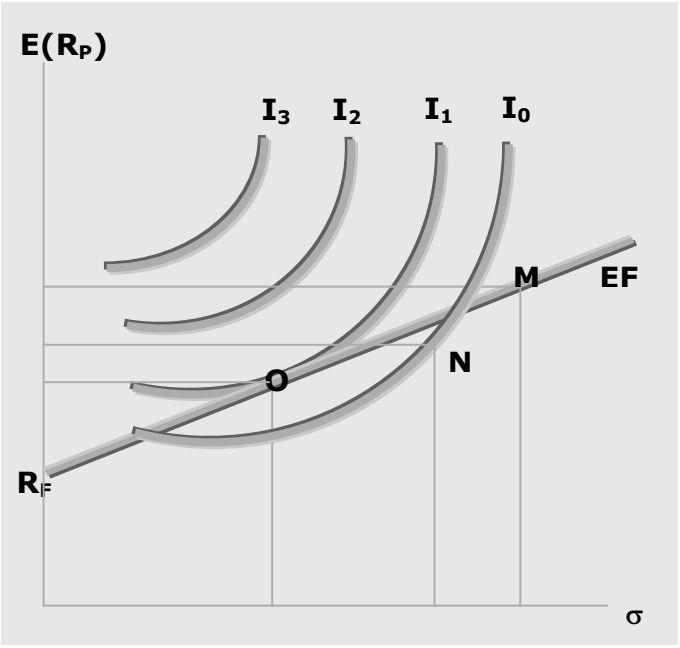


Figure 3.2. Portfolio Optimization in Conventional and Islamic Markets (Naqvi, 1986)

Another study by Johnson and Neave (1996) postulates that the Islamic framework would be different because of the restrictions it puts on diversification possibilities. An Islamic investor would screen the universe of stocks or projects for *Shariah* compatibility. Those that do not meet the parameters of *Shariah* compatibility (such as, companies in the business of alcohol, pork, entertainment, financial services, or those with high interest-bearing debt *etc.*) are eliminated from the domain of choice resulting in low diversification possibilities. This would imply a shift of the Efficiency Frontier to the right (higher risk for same levels of expected returns). Johnson and Neave leave the risk-free asset untouched and go on to determine the optimal portfolio for the investor. The outcome is presented in diagram 3.3. It is easy to see that there is once again a welfare loss as the investor now operates on a lower utility indifference curve[4].

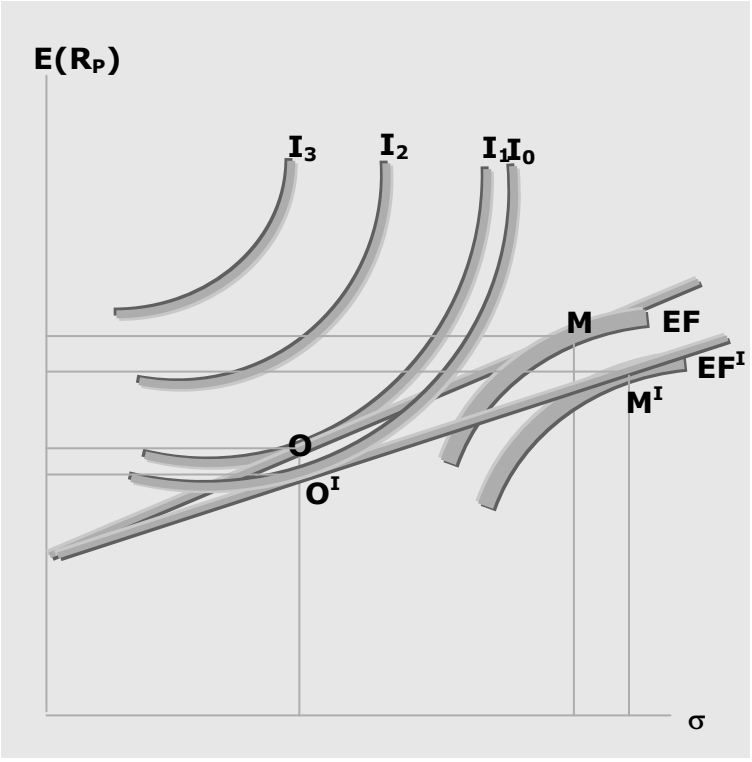


Figure 3.3. Portfolio Optimization in Conventional and Islamic Markets (Johnson and Neave, 1996)

The studies cited above were undertaken more than a decade ago and much has changed in the Islamic finance scene. One significant development has been the emergence of Islamic asset-backed debt securities, such as, *sukuk-al-ijara* that hardly entail any risk for the investor. The residual risk with Islamic *ijara* (that accords permissibility to such an investment) is transferred to the sovereign as a third party that voluntarily absorbs such risk. The result is that such *sukuk* function like treasury-bills or government securities or theoretically speaking, like the risk-free asset in our framework. Similar to the assumption of William Sharpe, one may realistically assume that returns on the Islamic debt securities have little correlation with returns from risky assets like equity. Of course, the returns from asset-backed securities in the Islamic framework are likely to be higher than that on similar conventional securities. Thus, the risk-free rate RFI in the Islamic framework refers to returns from a risk-free but asset-backed Islamic debt security. Further, we observe that $R_F^I > R_F$.

The assumption made in Johnson and Neave study regarding shifting of Efficiency Frontier to the right appears to be unrealistic. In the first place, the Islamic investment screens do leave a universe of stocks that is large enough to generate well-diversified portfolios. There are a large number of empirical studies that assert that the size of the portfolio need not be very large to achieve the benefits of efficient diversification. It should be noted that a major screening parameter relates to financial leverage employed by a firm. Firms with high debt-equity ratios are automatically screened out and the acceptable universe comprise stocks that have very little interest-bearing debt in their capital structure. It is a well-known theory of modern finance is that beta, that is, the measure of systematic risk that cannot be diversified away, has a linear and direct relationship with financial leverage. Firms with low debt are likely to have low betas. Secondly, the addition of new Islamic securities would expand the universe of financial assets and increase the diversification opportunities. Thus, the result of screening out high-beta stocks and addition to Islamic securities would indeed shift the EF to left and not to right. Given the above analysis, we are now in a position to redraw our diagram. In order to facilitate a comparison we juxtapose the conventional and Islamic frameworks in diagram 3.4.

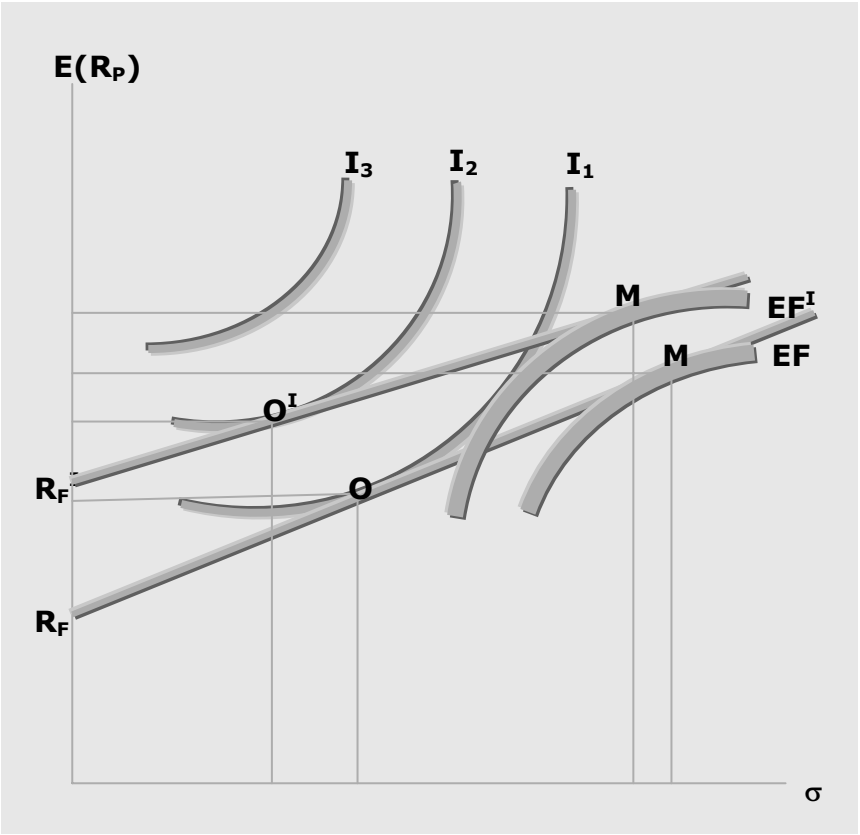


Figure 3.4. Portfolio Optimization in Conventional and Islamic Markets (Suggested Framework)

The Efficiency Frontiers are EF and EF^I respectively. The new Capital Market Line (CML) under the Islamic framework is $R_F{}^I O^I M^I$ that is tangential to EF^I at point M^I. The investor would maximize its utility by choosing a portfolio O^I on the new CML. It is easy to see that there would indeed be a welfare gain for the investor as he moves to a higher indifference curve.

3.4. Asset Pricing Models

While the EF and CML show all efficient portfolios in the market, the relationship between risk and return at the level of individual securities, assets and portfolios is captured in the asset pricing models. The most important among asset pricing model is the Capital Asset Pricing Model (CAPM). This model may be presented briefly in terms of the following statements.

a. Diversification is a natural way to reduce risk.

b. The risk that can be diversified away is called unsystematic risk.

c. The risk that cannot be diversified away is called systematic risk.

d. Investors in a portfolio are exposed to systematic risk and therefore, require a compensation for this risk.

e. The market model provides a way to measure systematic risk. This measure is called "beta" and reflects the degree to which an asset's returns are correlated with returns on the market portfolio.

f. A beta of zero implies that asset returns have no correlation with returns on the market. This is the risk-free asset. A beta of one implies that asset returns are perfectly positively correlated with returns on the market. Now, given that the risk-free (zero-beta) asset is expected to generate a return equal to R_F, and the market portfolio is expected to generate a return equal to R_M, the capital asset pricing model links the expected or required return on a risky asset with its beta in the following manner. It argues that excess return on the given asset (excess over return on risk-free asset) must be proportional to excess return on the market portfolio.

$$E(R_P) - R_F = \beta\,[E(R_M) - R_F]$$

Or, $$E(R_P) = R_F + \beta\,[E(R_M) - R_F]$$

Thus, CAPM provides a way to measure cost of risky assets, such as, equity. It in fact establishes a linear relationship between risk as measured by "beta" and cost of equity ($E(R_P)$ in the above equation). The relationship is captured in what is called a Security Market Line (SML).

3.4.1. Asset Pricing Theory from an Islamic Perspective

Subsequent to CAPM many variations to this model have been reported in financial literature. Notable among these is the Arbitrage Pricing Theory that essentially uses multiple factors instead of a single market portfolio to capture systematic risk. The fundamental framework however, remains the same. Required rate of return on an asset is estimated as a sum of two components: the risk-free rate and a risk-premium. The risk premium is a compensation for systematic risk. The problem therefore, largely boils down to accurate estimation of systematic risk and translation of this measure of risk into a risk-premium. How this should be done, is largely an issue of scientific rigor and empirical validity. From an Islamic perspective, the issue would perhaps relate

to the existence of risk-free rate in the equation. Should we replace this rate with the rate of return on *sukuk-al-ijara* that is free from risk of default and may be assumed safely as having zero or negligible correlation with the equity market returns? This is a realistic solution. Alternatively, one may look for an empirical solution to this problem. This solution involves locating empirically a zero-beta portfolio and then using the observed return on this zero-beta portfolio as a proxy for R_F.

End Notes

1. *Majallahel-Ahkam-I-Adliya* (n.d) translated by C..R. Tyser, Law Publishing Company Lahore, Pakistan

2. Naqvi, S.N.H. (1986), *A Model of Dynamic Islamic Economy,* Pakistan Institute of Development Economics, Islamabad, Pakistan.

3. Tag el-Din, Seif. I. (1991), "Risk-Aversion, Moral Hazard and The financial Islamization Policy", *Review of Islamic Economics*, Volume1, No**.** 1, pp. 49-66.

4. Lewis D. Johnson and Edwin H. Neave (1996) *Efficiency and Effectiveness of Islamic Financing: The Cost of Orthodoxy*, Working Paper # 96-26, Queen's School of Business, Queen's University, Canada

4. Market Efficiency

Modern corporate finance assumes efficient markets. Efficient markets ensure a close correspondence between fundamental or intrinsic value and market value of a firm. If a firm as a result of sound investment, financing and operational decisions gets financially stronger, then its stock prices reflect this positive change by going up. The increase in stock price or market value of firm implies increase in the shareholders' wealth. Similarly, if a firm as a result of irrational and unsound investment, financing and operational decisions, gets financially weaker, then its stock prices reflect this negative change by going down. The decrease in stock price or market value of firm implies decrease in the shareholders' wealth. Thus a finance manager's goal of shareholders' wealth maximization is dependent not only on the soundness of his decisions, but also on the efficiency of the market where the firm is being continuously valued.

The idea of efficient markets is presented as the Efficient Markets Theory. This in turn, underlies many other theories of modern finance. While the instructor may use empirical for specific markets to judge whether or not the theory holds good, it would be far more useful on his part to make the student understand what makes a market efficient. A matter of still greater urgency is to find out and discuss whether Islamic markets guided and constrained by Islamic norms of ethics are efficient markets. We begin with the notions of market efficiency first.

4.1. Forms of Efficiency

The notion of **allocational efficiency** implies that funds are channeled into desirable projects. More funds should flow into projects with higher

profitability and lower risk (hence, higher value) and vice versa. This implies that stocks issued by such projects should command a higher price in the market. Prices should reflect intrinsic worth of stocks in both the primary market where initial public offerings are made and the secondary market or the stock exchange where existing stocks are continuously traded.

Pricing efficiency is a prerequisite for allocational efficiency which means prices of stocks must equal their respective fundamental values at all times. The equality between price and value of a given stock would be achieved only when there is informational efficiency. For instance, in the secondary market where stocks are continuously traded, a change in the value of a stock may occur with new information, which either changes profitability or risk or both. With a change in value, there is adjustment. In an efficient market, this reaction would be instantaneous and accurate. Only then the equality between price and value would be maintained at all times.

Informational efficiency implies that there are no lags in the dissemination and assimilation of information and it is a prerequisite to pricing efficiency.

Another prerequisite to pricing efficiency is **operational efficiency**, which implies that transactions should be executed at minimal costs. High transaction costs prevent price adjustment to take place instantaneously and accurately.

From the above, it is clear that any move or regulation that reduces transaction costs, simplifies the trading system, increases the availability and accuracy of information, improves information processing by participants as a step towards improving the allocational efficiency of the system. Instantaneous and accurate price adjustment also presupposes that intense competitive pressures force all participants to react without any lag and that the markets are dominated by rational investors who would not overreact or underreact. An efficient market is also a stable market where violent price swings due to irrational behavior of the participants is ruled out.

The Efficient Markets Theory discussed above relates to pricing efficiency.

4.2. Forms of Pricing Efficiency

The first form of market efficiency is **weak-form efficiency**, which is a situation in which market prices rapidly reflect all information contained in the

history of past prices. Past price movements are random; the past cannot predict future price changes.

Fundamental analysts attempt to find under- or over-valued securities by analyzing "fundamental" information, such as earnings, asset values, etc., to uncover yet undiscovered information about the future of a business. They look ahead trying to forecast future information; technical analysts are studying past prices, looking for predictable patterns. New information is quickly reflected in the price of the stock, and investors were not able to earn superior returns by buying or selling after the announcement date.

A second form of market efficiency, **semi-strong form efficiency**, is a market situation in which market prices reflect all publicly available information.

A third form of market efficiency, **strong-form efficiency**, is a situation in which prices rapidly reflect all information that could be used to determine true value. In this market, all prices would always be fairly priced and no investor would be able to make superior, accurate forecasts of future price changes. Even professional portfolio managers do not consistently outperform the market, thus supporting the creation of "index" portfolios, assembled to match popular market indices.

The efficient market theory implies that security market prices represent fair value. Some argue this cannot be for prices go up and down, and that fair value should change very little. Fair market value changes with new information about the future cash flows associated with a security. The efficient-market theory implies that portfolio managers work in a very competitive market with little or no added advantage over the next portfolio manager. They make few extraordinary returns, not because they are incompetent, but because the markets are so competitive and there are few easy profits.

Though the efficient markets hypothesis is well supported by research, there are a few unexplained events and exceptions. One exception is the evidence that managers have made consistently superior profits trading their own company's stock, probably with good insider information, but testing the strong-form efficiency theory. The managers know more about the company's opportunities than other market participants. Small firm stocks have consistently outperformed large firm stocks, especially in January, questioning even the weak-form efficiency hypothesis. The fact that other yet-explained variables are involved is the likely answer.

4.3. Investment and Financing Decisions in Efficient Markets

The instructor may note there that this section contains material that presupposes an understanding of how investment and financing decisions are made. Since these are discussed only later in Chapters 5 and 8 the instructor may omit the contents at first go and revert only after the relevant chapters have been covered.

A. Financing decisions are more complicated than investment decisions for the variety of securities to sell is large and continually expanding, the number of financial institutions providing financing is extensive, and the market is very competitive.

B. In some ways financing decisions are easier than investment decisions. Financial decisions may be reversed more easily than investment decisions. The level of competition in financial markets is extensive so it is hard to make an incorrect financial decision. All prices, rates, and terms are fair, or are true values, and unlike investment decisions, which usually provide positive net present values, financing decisions usually provide fairly priced, zero NPVs.

C. Funds are raised, or securities are sold in efficient capital markets, or markets where security prices rapidly reflect all relevant information, currently available, about asset values.

D. In efficient markets all securities are fairly priced, so financing is always a zero NPV transaction.

4.4. Lessons from Efficient Market Theory

A. *Markets have no memory*. Even though the efficient-markets theory assumes that past prices contain no information about future prices, or that prices are a random walk, financial managers often act as if they did not accept such a hypothesis:

   i. Managers are reluctant to issue stock after a decline, waiting for a rebound.

   ii. Managers favor the issuance of equity over debt after an increase in equity values. They are attempting to sell when the stock is high, reducing the dilution of EPS.

iii. Managers are reluctant to sell equity if favorable announcements are to be made in the future, but inside information has nothing to do with past prices, only the future of the firm.

B. *There are no financial illusions*. Investors are not concerned with accounting income and its measurement or timing, only cash flows. Creative accounting is an invisible curtain to analysts, but managers feel others benefit with their "smoke and mirrors" accounting methods. Research indicates that such creative announcements produce no long-term value, and that only information related to future cash flows are "value relevant" information to the market.

C. *There are no free lunches on the stock market*. Trust market prices in an efficient market. There is no better deal tomorrow.

4.5. Market Efficiency and Ethics

While a financial market must be efficient, it must also be ethical and fair to all participants. The idea of ethics or fairness in the financial market is generally discussed within a framework of entitlements or rights of savers and investors. The instructor may highlight the fact that there is a general dearth of literature on financial ethics. A study by Shefrin and Statman (1992) identifies seven classes of fairness relevant to a financial system - freedom from coercion, freedom from misrepresentation, right to equal information, right to equal processing power, freedom from impulse, right to trade at efficient prices, and right to equal bargaining power[1].

4.5.1.Freedom from Coercion

This freedom implies that investors have the right not to be coerced into a transaction. A transaction is fair if it is backed by the free will of all the parties to the contract. Another dimension to this freedom is the right not to be prevented from entering into a transaction. This freedom may also imply the right to search for information and at the same time, not to be forced into making specific disclosures.

4.5.2. Freedom from Misrepresentation

This freedom implies that all investors have the right to rely on information voluntarily disclosed as truthful. This does not imply any kind of compulsion to reveal information. However, a case of deliberate disclosure of inaccurate information involves a claim against the provider of information.

4.5.3. Right to Equal Information

This right entitles all investors to equal access to a particular set of information. A party in possession of a specific set of value-relevant information is forced to disclose it to others. For example, at the time of an Initial Public Offer (IPO), the promoters may be forced to reveal all value-relevant information known to them to the market. Similarly, investors with privileged access to "inside information" are prevented from using such information in their transactions. The mandatory disclosure norms, as well as the insider trading regulations obviously negate the freedom against coercion of a market participant.

4.5.4. Right to Equal Information Processing Power

This right entitles all investors not only to equal access to a common set of information but also to a "competency floor" of information processing ability and protection against 'cognitive errors'. This right may take the form of compulsory disclosure of information in a "processed" form or prohibition of certain transactions where certain groups of investors may be at an information-processing disadvantage.

4.5.5. Freedom from Impulse

This right entitles all investors to protection from imperfect self-control. This ensures that an investor is prevented from making mistakes, which are harmful to his own interest. For example, the regulatory authority may ask the sellers to provide a three day "cooling off" period during which they can cancel an impulsive transaction. While providing for the rights to equal processing power and to freedom from impulse, the regulator assumes a paternal role and seeks to protect the investors.

4.5.6. Right to Trade at Efficient Prices

This right entitles all investors to trade at prices they perceive as efficient or correct. The alternative is to let prices adjust by whatever amount necessary to equate supply and demand by investors, even if this process creates excessive volatility.

4.5.7. Right to Equal Bargaining Power

This right entitles all investors equal power in negotiations leading to a transaction. Unequal bargaining power can occur when one party to the transaction has deficiencies in information processing or imperfect self-control. Unequal bargaining power may also otherwise exist, as in case of low-networth

investors competing for allotment in an IPO with high-networth investors. It may be noted that all the latter six norms negate the first, that is, the freedom from coercion.

Financial market regulations often enhance *both* efficiency and ethics. In many instances, however, a conflict exists between concerns about efficiency and ethics. In such cases regulations involve a trade-off between the two. The Shefrin and Statman study provides a lucid account of landmark events and depicts the present regulations as an outcome of a continuous "tug-of-war" between concerns about ethics and efficiency. In an Islamic system, by definition, concerns about ethics predominate all other concerns. But does it imply that Islamic financial markets would be less efficient? What are the notions of ethics in an Islamic financial market? [2].

4.6. Islamic Market Ethics

In an Islamic financial system, comprising markets and institutions, norms of *Shariah* must not be violated and concerns about Islamic financial ethics must prevail over all other concerns. What are the fundamental norms of Islamic financial ethics? At this stage the instructor may briefly introduce the following norms and concerns.

4.6.1. Freedom to Contract

Islam provides a basic freedom to enter into transactions. The holy *Quran* says: *Allah has made trade lawfu*l.(2:275). Further, no contract is valid if it involves an element of coercion for either of the parties.

4.6.2.Freedom from *Al Riba*

All forms of contracts and transactions must be free from *riba*. *Riba* means ‘excess’ and the prohibition of *riba* implies that there is no reward for time preference alone. Reward, returns or benefits must always accompany liability or risk. The question of *riba* has been addressed in a large body of literature and there is a general consensus about the meaning and implications of *riba*.

4.6.3. Freedom from *Al Gharar* (Excessive Uncertainty)

All forms of contracts and transactions must be free from excessive *gharar* (or uncertainty). This implies that contracting under conditions of excessive uncertainty is not permissible. Islamic scholars have identified the

conditions and highlighted situations that involve excessive uncertainty and consequently, disallow a contract.

4.6.4. Freedom from *Al-Qimar* (Gambling) and *Al-Maysir* (Unearned Income)

Contracting under excessive uncertainty *(gharar)* is akin to gambling *(al-qimar*). And uninformed speculation in its worst form is also akin to gambling *(al-qimar*). The holy *Quran* and the traditions of the Prophet (pbuh) explicitly prohibit gains made from games of chance, which involve unearned income *(al-maysir*).

4.6.5. Freedom from Price Control and Manipulation

Islam envisages a free market where prices are determined by forces of demand and supply. There should be no interference in the price formation process even by the regulators. It may be noted here that while price control and fixation is acceptable only to combat cases of market anomalies caused by impairing the conditions of free competition.

4.6.6. Entitlement to Transact at Fair Prices

In some instances, pricing is based on a valuation exercise. In such cases the difference between the price at which a transaction is executed and the fair price (as per the opinion of valuation experts) is termed as *ghubn*. The presence of *ghubn* makes a transaction unethical**.**

4.6.7. Entitlement to Equal, Adequate and Accurate Information

Islam attaches great importance to the role of information in the market. Release of inaccurate information is forbidden. The concealment of vital information *(ghish*) also violates the norms of Islamic ethics and according to the traditions of the Prophet (pbuh), the informational disadvantaged party at the time of the entering into the contract has the option to annul the contract. Islamic scholars are of the opinion that a transaction must be free from *jahalah* or misrepresentation to be considered Islamic. The institution of a transparent market is, thus, quite important and transactions should be executed within the market after taking into account all relevant information.

4.6.8. Freedom from *Darar* (Detriment)

This refers to the possibility of a third party being adversely affected by a contract between two parties. If a contract between two parties executed with their mutual consent is detrimental to the interests of a third party, then it may

enjoy certain rights and options. A case in point is the pre-emptive right (*al-shufa*) of a partner in joint ownership.

4.6.9. Mutual Cooperation and Solidarity

This norm is central to Islamic ethics. The second verse of *Surah Al Maida* in the holy *Quran* says: "Assist one another in the doing of good and righteousness. Assist not one another in sin and transgression, but keep your duty to Allah" (5:2).

The list of norms of Islamic ethics stated above is by no means exhaustive. It differs from the norms of mainstream financial ethics significantly - in imposing injunctions against *al-riba, al-qimar*, *and al-maysir*.

4.7. Efficiency of Islamic Markets

Islamic markets are ethical markets. All transactions in Islamic markets must conform to norms of Islamic financial ethics, such as, prohibition of *riba, gharar, qimr, maysir, ihtikar, najash, darar* and the like. These norms are discussed in greater detail in the introductory chapter of Part II. Conventional financial markets also seek to ensure various norms of ethics, such as, freedom from coercion, freedom from misrepresentation, right to equal information, right to equal processing power, freedom from impulse, right to transact at efficient prices, and entitlement to equal bargaining power. However, usually there is a tug-of-war or trade-off between concerns about efficiency and concerns about ethics with the balance generally tilting in favor of the former. This naturally raises fears about efficiency of Islamic markets where norms of ethics must prevail in case of a trade-off. How realistic are these apprehensions?

A major point of difference of Islamic markets from their conventional counterparts is the role of speculation in these markets. Conventional markets provide for a range of mechanisms, such as, margin requirements, interest-based lending, short-selling, extended settlement periods etc. that encourage speculation. One of the earliest critics of speculation was John Maynard Keynes who highlighted the adverse impact of speculation on allocational, pricing and informational efficiency of the markets. Speculation certainly improves liquidity and operational efficiency of the markets by bringing down transaction casts. The net impact is clearly negative according to the Keynesian view. According to most present day financial economists, however, this may not be so. More recent theoretical and empirical studies do not, in general, find evidence of any adverse impact of excessive speculation on allocational, pricing, or informational efficiency. And given that speculation certainly

enhances operational efficiency, the verdict is in favor of allowing free play to speculators. This is not so in case of Islamic markets where efficiency issues are clearly in the nature of *maslaha mursalah* or unrestricted public interest and must be addressed as such. In other words, these merit lesser importance than the incidence of *al-riba* or *al-qimar*. If through the market surveillance mechanism it is observed that the market is dominated by speculators and has degenerated into a vehicle of gambling, then such speculation must be curbed even if it implies curbing operational efficiency of the system.

For many other matters that defy a clear-cut policy prescription in conventional markets and continue to be debated, the Islamic framework provides a definite answer about their permissibility or otherwise. For instance, the issue of insider trading always involves a trade-off between pricing and informational efficiency on the one hand and right to equal information on the other. A curb on insider trading hinders efficiency but enhances ethics. As a result, insider trading is prohibited in certain markets and permitted in others. In an Islamic stock market however, the choice is between the right to equal information, which has the backing of *Shariah* and efficiency, a matter of *maslaha*. Insider trading clearly has no place in an Islamic stock market even if it implies lower pricing efficiency.

An Islamic stock market must be made free from *riba*, by disallowing *ribawi* bonds, *riba*-based leveraged transactions on margin etc. It must be made free from *gharar*, by ensuring adequate and accurate flow of all value-relevant information through mandatory disclosures and also making available such information in processed form. Such a move to reduce *gharar* would clearly contribute to higher and higher levels of informational efficiency and hence, pricing and allocational efficiency.

In an Islamic stock market, by definition, concerns about Islamic ethics dominate all other concerns, including concerns about various types of market efficiency. However, this does not imply that an Islamic stock market would be less efficient than a conventional stock market. In fact, the concerns about efficiency are explicitly addressed within the Islamic ethico-legal framework, in the framework of *maslahah mursalah* or unrestricted public interest. The carefully outlined system of priorities in the Islamic ethico-legal framework requires that the norms that emanate directly from the holy Quran, Sunna, and *ijma* must be accorded priority over concerns about *maslahah*. This means, one need not be bogged down by the endless and cyclical debates over the net impact of speculation on efficiency and consequently, the usefulness or otherwise of various forms of intervention by the regulator to curb speculation. When speculation tends to take the shape of gambling and generates unearned income, it must be curbed, irrespective of its impact on efficiency. Seeking to

reduce *gharar* however would certainly enhance the informational and pricing efficiency of the market.

End Notes

1. H Shefrin and M Statman (1992) *Ethics, Fairness, Efficiency, and Financial Markets*, The Research Foundation of Institute of Chartered Financial Analysts, Virginia

2. Obaidullah, M. (2001) Ethics and Efficiency in Islamic Stock Markets, *International Journal of Islamic Financial Services*, Vol.3, No.2. Also see Seif el-Din Ibrahim Tag el-Din (1996) "Characterizing the Stock Exchange from an Islamic Perspective", *Journal of King Abdulaziz University: Islamic Economics.* Vol. 8 and Comments by Obaidullah, M. (2000) on this paper, *Journal of King Abdulaziz University: Islamic Economics.* Vol. 12.

5. Investment Decisions

One of the key areas of concerns to a finance manager is: what long-term investments should the firm make? A firm normally possesses several possible investments or projects. Each possible investment is an option available to the firm. Some options are valuable. Others are not. It is therefore important for the finance manager to evaluate the available alternatives. Standard texts normally devote entire sections comprising three-four chapters to techniques that help the finance manager do this job in a rational and efficient manner.

Investment decisions, also known as capital budgeting decisions are not just about acquiring fixed assets. They include all such decisions where (i) there is commitment of large funds at present while (ii) benefits expected from the decision are to accrue over a long period of time. Examples could be as varied as: purchase of machinery, introduction of a new product or new line of business, setting up a new factory, exploring a new market, investment in research and development and what-have-you.

In an Islamic framework, the finance manager's concerns are further magnified. His fiduciary responsibility is now two-fold. One, like a conventional manager, he must identify the investments or projects that not only create value, but maximize value and hence wealth of the shareholders. Two, the investments must not only be acceptable in *Shariah*, but seek to achieve highest possible levels of Islamic ethics. We turn to the first concern now.

Like all managerial decisions, investment or capital budgeting decisions involve a comparison of costs with benefits. There are two basic steps to be followed in the process:

a. Screen the environment for investment projects that create value. In other word, identify projects where benefits exceed costs or there are net positive benefits. Reject projects that destroy value, where costs exceed benefits or net benefits are negative.

b. Between several identified or "accepted" projects, choose the one that maximizes value. In other words, rank the projects in order of their net positive benefits.

A finance manager is likely to face a few practical difficulties because:

a. costs are easy to quantify (as cash outflows) and estimate, while benefits are more difficult to quantify (as cash inflows)

b. benefits even if quantified, are difficult to estimate, since these relate to future and are expected to accrue over the entire economic life of the project

How so ever difficult it may appear, the above need to be undertaken before any comparison (in the financial sense) between benefits and costs may be compared.

Once we estimate the cash outflows (costs) and inflows (benefits), how do we arrive at the net benefits? We may realistically assume that cost of the project would be incurred during the current time period. But can we proceed with the same assumption in case of expected benefits? Since benefits (cash inflows) from a long-term project are expected to occur over a series of future time periods, we cannot proceed further until we adjust the future cash flows for their timing differences and make them comparable. The adjustment process would require discounting future cash flows and computing their present equivalents at an appropriate rate of discount.

5.1. Techniques of Capital Budgeting

The following is a brief account of various techniques of cost-benefit comparison and capital budgeting. First we consider the more scientific Discounted Cash Flow (DCF) techniques, such as, Net Present Value (NPV) and Internal Rate of Return (IRR) and then the more crude ones, such as, Payback and Accounting Rate of Return (ARR).

5.1.1. Net Present Value (NPV)

Net present value measures each project's contribution to shareholder wealth. While there are several long-term investment decision criteria, the net

present value method is favored because it tends to focus on building shareholder value and has the fewest limiting assumptions.

Decision under this method may be taken in the following few steps:

i. Forecast the future project cash flows, noting when the flow occurs.

ii. Estimate the opportunity cost of capital. The opportunity cost of capital is the expected rate of return given up by investing in the project under review.

iii. Calculate the present value of the future cash flows discounted at the opportunity cost of capital rate. The present value of the cash flows represents the maximum amount that investors would pay for the investment.

iv. Compare the present value sum of the future cash flows with the investment outlay The net present value is the excess of present value sum of the future cash flows over the investment outlay is the net present value. If the net present value is positive (greater than zero), make the investment. If the net present value is negative, forgo the investment.

v. Rank all positive-NPV investment projects in order of their NPVs. The project with maximum positive-NPV would be considered most attractive. Actual investment may be undertaken in the order in which projects are ranked.

$NPV = \sum A_t / (1+K)^t - C$ where

A_t is the series of cash inflows over time periods 1…..t;

K is the cost of capital;

C is the cost of the project.

The expected net present value of a project is the added shareholders' wealth provided by the project. Additional net present values generated by investments are represented in higher stock prices. The net present value method is a proxy for financial market investor analysis of business investments. Projects that are expected to generate negative net present values will reduce shareholders' wealth by the expected negative NPV. It is worth mentioning here that the process described here assumes efficient markets, where there is close correspondence between changes in fundamental or

intrinsic value of the firm and the market value of the firm as reflected in stock prices.

Textbooks also make a mention of several other techniques of capital budgeting. None of these is more accurate than the NPV method. Nevertheless, we make a brief mention of these below and note their limitations.

5.1.2. Internal Rate of Return (IRR)

An alternative to the NPV method is the internal rate of return (IRR), which is the discount rate that, having discounted the expected cash flows, will produce a present value equal to the cost of the project. In other words, IRR is a discount rate that will generate an NPV of zero. According to the IRR method, one may invest in any project offering a rate of return higher than the opportunity cost of capital.

R is the internal rate of return when $\sum A_t / (1+R)^t = C$

The IRR of a single future cash flow (PV) or an annuity flow (PV of annuity) may be determined easily and arithmetically as the discount rate that equates the cost of the project with the present value of the future cash flows. The IRR of a multiple, uneven cash flow stream involves more than one unknown and is not easily solved arithmetically. One must iterate, often several times, selecting an expected IRR and discounting the cash flows until the NPV of the project is zero.

This method produces results that are similar in some ways to that under the NPV method. The internal rate of return, or IRR, or the discounted cash flow (DCF) rate of return, is the discount rate at which NPV equals zero. If the rate of return is greater than the opportunity cost of capital, the NPV of the project is greater than zero. If the NPV of a project is less than zero (negative) the rate of return is less than the opportunity cost of capital. Thus, the rate of return rule and the NPV rule are equivalent.

The IRR must not be confused with the opportunity cost of capital. The IRR is the rate of return expected from the cash flows of the investment. The opportunity cost of capital is the minimum return acceptable to the firm and the minimum acceptable rate of return demanded by investors in financial markets on similar risk investments. While the IRR is easier to understand than the NPV, the NPV should be used as a final decision criterion for an investment, since IRR has a number of theoretical pitfalls.

i. Where the finance manager faces several mutually exclusive projects, one must be selected and the others deferred or passed by.

Here the IRR may give a conflicting choice relative to the NPV, which focuses more accurately on shareholder value. Only analysis of the IRR on incremental basis will give decisions consistent with the NPV.

ii. In case of mutually exclusive projects involving different outlays but same lives, small projects may be erroneously selected over larger projects using the IRR.

iii. Any change in sign (+,-) in periodic cash flows produces as many IRRs as there are changes in the cash flow directions of the investment. Many investments, such as oil or gas wells, entail added outlays after several periods of positive cash flows, producing the arithmetical possibility of multiple IRRs.

5.1.3. Non-DCF Methods

A popular and relatively simple cash flow investment decision criterion is the payback, defined as the time until cash flows recover the initial investment of the project. The payback rule states that the investment should proceed if the payback period exceeds a specified period. While cash flows are considered, the timing of the cash flows and the cash flows beyond the payback period are not considered. The payback method ignores the risk of the project cash flows and the opportunity cost of capital of investors. The payback method is a popular, simple evaluation method for short-lived projects.

Another decision criterion, accounting rate of return or the average accounting income per period divided by the book value of the investment. The book rate of return does not consider cash flows, the timing of the cash flows, nor the investors' opportunity cost of capital.

5.2. Islamic Perspective on DCF Techniques

While dealing with capital budgeting techniques, some authors of textbooks use rate of interest as the rate of discount. This naturally is a source of discomfort to students of Islamic finance. The instructor may raise the following questions among the students to initiate a discussion.

a. Does not the Islamic injunction for zero interest rate logically require the use of zero discount rate with the resulting loss of efficiency in investment?

b. Is it proper to use so-called "Compound Interest Tables" in decision making while condemning interest?

The answers are not too far to seek. For these authors, using interest rate in the framework is merely a matter of simplification and convenience. The rate of interest is the investors' opportunity cost of capital or the expected rate of return from investing in the alternative project when the alternative project is "lending on the basis of interest". In an economy with or without interest rates, the investor's expected return from the next best "permissible or *halal*" project would serve as the appropriate rate of discount. Thus, the basic framework of evaluation would need no modification.

In a similar fashion it may be pointed out that the compound interest rate tables are tools for calculating future or present value of sums that are expected to grow at given rates. Use of 'interest rate' as the growth rate is a tradition of modern finance at best and can be easily done away with. One can always name these tables simply as 'periodic growth tables' or as something else that conveys the correct meaning.

So far we have used the concept of time value of money to justify the mechanism of discounting future benefits in the process of evaluating an investment. We have also rightly used the opportunity cost of investing as the rate of discount assuming that resources received earlier have the opportunity to be invested longer. Implicitly we assume that the opportunity to invest them does really exist. The assumption is realistic for most projects and hence, the techniques of NPV or IRR could be meaningfully employed to evaluate the projects. However, there are some exceptions. It is possible to find exceptional cases where the justification for discounting is lacking. One such case is the lack of suitable investment opportunities because of international or local institutional factors. In the absence of investment opportunities, there is no reason to assume that the opportunity cost of capital would be positive.

Interestingly, non-recognition of the above fact leads to some serious computational problems within the domain of mainstream finance. For example, when NPV and IRR methods compared, the formed is deemed preferable. The major points of differences between the two are as follows:

a. The computation of NPV assumes that interim cash flows are reinvested at the cost of capital while IRR assumes that interim cash flows are reinvested at the IRR.

b. The IRR solves for multiple answers (rates of return) when the cash flow pattern is non-conventional, i.e. cash outflows also take place in future time periods.

The method recommended to reconcile the differences as in (a), or to resolve the problem as in (b), requires the following:

a. Estimate reinvestment rates for all time periods,

b. Allow cash inflows to grow at their respective reinvestment rates,

c. Find the sum of all future cash inflows at the terminal future date,

d. Discount this sum to present using cost of capital as the rate of discount, and deduct the same from the cost of the project to get Net Present Value.

e. An alternative to step (iv) is to allow the cost of the project to grow at cost of capital till terminal date and deduct the future value of cost of project from the future value of interim cash inflows to get Net Future Value.

It may be noted that both the alternatives would yield same result.

The problem as in (b) above may also be resolved in a similar fashion. If additionally, there are interim cash outflows, allow them as also the initial cash outflow to grow at the cost of capital till terminal date and then find the net future value.

Thus, the correct method from an Islamic point of view would be as follows.

a. The rates of compounding (and discounting) for cash inflows are their respective reinvestment rates. If reinvestment rare is zero for a given period, the corresponding cash inflow would be compounded at zero rate.

b. The rate of compounding (and discounting) for cash outflows is the cost of capital.

c. Further, cost of capital is not same as rate of interest, but cost of *permissible* sources of funding, such as, equity. Note that rate of interest 'i' has no place in the Islamic framework, where as cost of equity (or of any permissible risky asset) defined as rate of interest (i) plus appropriate risk premium (θ) 'i+θ' as the rate of compounding or

discounting should pose no problem, being the return on a risky and *permissible* activity.

5.3. Risk and Uncertainty in Capital Budgeting

The key inputs in a DCF analysis are projected future cash flows. Since they relate to future, it is humanly impossible to be certain about their occurrence. As we discussed in Chapter 3, the riskiness of the outcomes should also be taken into account in evaluating a decision. In the context of capital budgeting decision we would need to find out in addition to the NPV of the project, a measure of risk associated with the NPV.

For risk analysis, we may use the same portfolio theory framework as discussed in Chapter 3. Riskiness of NPV measured as σ_{NPV} may be estimated in a number of ways. Standard textbooks on corporate finance usually devote a complete chapter to capital budgeting under conditions of risk. Probability theory provides for the method to handle risk. Instead of assuming cash flows to be certain and then finding out their respective present values and NPV, we now assume that each cash flow now has a corresponding probability distribution. The mean and standard deviation of each of these variables is then combined to produce σ_{NPV} - the risk measure for the project. Once we have the NPV and the σ_{NPV} for each of the projects, it would be possible to identify the efficient portfolio of projects. The exact choice as highlighted in detail earlier, would depend upon investor's attitude towards risk. On the Efficiency Frontier, a project with higher risk (σ_{NPV}) would be the one with higher return (NPV).

Finance manager in practice, however, face projects that are not perfectly divisible (unlike financial assets) and are finite in number. Therefore, the Efficiency Frontier for real-life projects is more a theoretical possibility. The starting point in risk analysis is estimation of probability distribution for each of the cash flows and finance managers may stop short of actually deriving the probability distributions. In stead, they opt for techniques like sensitivity analysis that does a partial job of estimating risk associated with the project.

5.4. Evaluating Investments to Promote Islamic Values

So far we have used the concept of time value of money to justify the mechanism of discounting future benefits in the process of evaluating an investment. We have also rightly used the opportunity cost of investing as the rate of discount assuming that resources received earlier have the opportunity to be invested longer. Implicitly we assume that the opportunity to invest them

does really exist. The assumption is realistic for most projects and hence, the techniques of NPV or IRR could be meaningfully employed to evaluate the projects. However, there are some exceptions.

It is possible to find exceptional cases where the justification for discounting is lacking. One such case is the lack of suitable investment opportunities because of international or local institutional factors. In the absence of investment opportunities, there is no reason to assume that the opportunity cost of capital would be positive. Another case emerges when the output of a proposed investment is not conceptually exchangeable into investable resources. The following examples cited by Zarqa (1988) are quite interesting.

- a mosque where the number of people attending or praying is one measure of output,
- a health unit whose output is the number of people relieved from a certain pain,
- a road improvement to reduce fatal accidents (i.e. save so many lives per year).

As he asserts "The costs of investment in all three cases should be subject to discounting because they can be used elsewhere in the economy. But it is not clear why the benefits of such projects should be discounted. Are ten persons relieved from pain (or provided prayer space) twenty years from now less "valuable" than the same number provided the same benefits next year?" [1].

End Notes

1. see Zarqa, M.A. (1983) 'Project Evaluation in Islamic Perspective', in Z. Ahmad et al. (ed.), *Fiscal Policy and Resource Allocation in Islam*, Islamabad, Institute of Policy Studies.

6. Sources of Finance: Financial Institutions

Corporate financial management requires raising of capital. Capital or funds may be raised for short-term or for the long-term depending upon the nature of financial requirement. Funds may be raised to finance working capital or to finance acquisition of fixed assets. And funds may be raised in the form of equity or debt. Funds are to be raised from the financial system.

As discussed earlier, a financial system seeks to (i) mobilize funds form savings-surplus units such as, individual households in the economy and (ii) channel the same into firms and units in need of funds. The latter are supposed to use these funds efficiently in productive projects and add to the wealth of the economy. The process involves use of financial products and services. These financial products and services are created and provided by financial institutions.

It is important to understand at the outset that financial institutions perform two different types of roles in the process – of intermediaries and of facilitators depending upon whether the process is indirect or direct. In a less developed financial system the process is mostly indirect with intermediaries playing a major role in the process. They intermediate between the savers and the investing firms. They mobilize funds from savers by offering them a range of "deposit" products. Then they channel the funds into investing firms by offering them various "financing" products. There is no direct linkage or interaction between the savers and investors. They have no rights or obligations with respect to each other. Financial institutions that act as intermediaries are mostly commercial banks. In a more mature financial system the process involves a direct offer of financial products by the firms to the savers. Financial institutions now act as facilitators in the process. They help business firms and

governments in various ways in raising the funds from households. They help firms design and create "securities" (*sukuk*), price them, and market the same to savers. Financial institutions that act as facilitators, are called investment banks.

The needs and requirements of the firms are now taken into consideration in designing financial products and services. These needs may relate to cost of funds, maturity, level and pattern of expected cash inflows from the project and the like. The products are in the nature of various "financing" products offered by intermediaries (where the process is indirect) and financial securities offered by firms (where the process is direct).

6.1. Equity-Based Financing

Conventional financial intermediaries provide long-term financing to their client-companies by participating in their equity. This product is however, not very popular with the conventional banks. While Islamic banks may also invest in common stocks of their client-companies, they do not find this very attractive, similar to their conventional counterparts. Islamic banks offer the following additional equity-based products.

6.1.1. Trustee partnership (*mudaraba*)

Trustee partnership based on *mudaraba* is a mode of financing through which the bank provides capital finance for a specific venture indicated by the customer. The bank, called *rabb-al-mal* is the owner of the capital and the customer-entrepreneur, called *mudarib*, is responsible for the management of the business and provides professional, managerial and technical expertise for initiating and operating the business enterprise or project. Profit is shared according to a pre-agreed ratio. Losses if any are entirely absorbed by the capital provider – the bank. *Mudaraba* may be of two types – restricted or unrestricted. In a restricted *mudaraba* (*mudaraba* al-*muqayyada*) the bank or the financier may specify a particular business in which investments may be undertaken. *Mudaraba* may also be an unrestricted one (*mudaraba al-mutlaqa*); in which case the *mudarib* may invest the capital provided in any business he deems fit. *Mudaraba* facility is observed to be a useful mode for financing projects, such as, real estate and housing development, construction of public roads, ports, markets, buildings, corporate plants, warehouses, and other infrastructural concerns.

6.1.2. Joint venture (*musharaka*)

A joint venture based on *musharaka* involves a partnership in which both the bank and its customer-client contribute to entrepreneurship and capital. It is an agreement whereby the customer and the bank agree to combine financial

resources to undertake any type of business venture, and agree to manage the same according to the terms of the agreement. Profits are shared between the bank and the customer in the pre-agreed ratio. Losses are shared strictly in proportion to their respective capital contributions. *Musharaka* is suitable all the projects mentioned above under *mudaraba*. In fact, it is suitable for financing any kind of business venture, manufacturing, trading, and others where the bank is willing to act as partner in the venture. In addition to financing of projects, *musharaka* may also be undertaken to finance a single transaction. A useful application of *musharaka* financing is the Islamic letter of credit. An Islamic letter of credit would involve the following steps:

a. The client informs the bank of his Letter of Credit requirements and negotiates the terms and conditions of joint-venture financing.

b. The client places a deposit with the bank under *al-wadia* principle towards its share of the cost of goods to be purchased/imported as per *musharaka* agreement.

c. The bank establishes the Letter of Credit and pays the proceeds to the negotiating bank utilizing the client's deposit together with its own share of financing, and eventually releases the pertinent papers to the client.

d. The client takes possession of the goods and disposes these off in the manner agreed upon.

e. The bank and client share in the profit from the venture as provided for in the agreement.

6.1.3. Declining *musharaka*

A declining *musharaka* is a recent innovation where the bank's share in the equity is diminished each year through partial return of capital. The bank receives periodic profits based on its reduced equity share that remains invested during the period. The share of the client in the capital steadily increases over time, ultimately resulting in complete ownership of the venture. Declining *musharaka* is observed to be potentially quite promising in the field of microfinance or financing of small and medium enterprises.

6.2. Debt-Based Financing

Debt-based financing remains the cornerstone of conventional banking. The bulk of bank finance is in the form of direct loans – short-term and long-

term. Direct loans may take the form of a simple loan of a definite amount repayable after a known maturity or time period. These loans involve payment of interest by the user of funds and hence, clearly involve *riba*. Loans may also take a different form as opening a credit or overdraft facility under which the user may draw an amount from the bank, which varies from time to time subject to an overall maximum limit. A bank also extends financing to companies through discounting of bills of exchange. Such discounting has great significance for trade and commerce as a vehicle of short-term working capital finance. In any bill discounting operation, the creditor may wait till maturity to receive the amount from the debtor, or get the instrument discounted at any bank and receive the discounted value from the bank anytime before the maturity period. The discounted value would be the nominal value less the discounts. The discount is nothing but the interest charged by the bank for the time beginning from the date of discounting till maturity. In fact, all debt-based products offered by conventional banks involve *riba*. Islamic banks offer the following debt-based products, some of which come dangerously close to their conventional counterparts. Some of these involve use of *hiyal* or legal trickery to get around *riba* prohibition. There are of course some Islamic debt products which are genuinely *Shariah*-compliant. We turn to these products first.

6.2.1. Deferred Payment Facility with Cost-Plus Sale (*Bai mu'ajjal-murabaha*)

Bai mu'ajjal-murabaha as a financing product, is a very popular, and perhaps the most popular Islamic financing product. *Bai bithaman ajil* (*BBA*) or simply *bai mu'ajjal* is a sale where payment of price is deferred to a future date. Often it includes features of a *murabaha*, which implies a sale on a cost-plus basis. The mechanism may be described as follows. Company A is in need of commodity X. It approaches Bank B. Now, B buys X from the vendor/ supplier at price P. This price is also known to A. Next, B sells X to A at a marked-up price, say P+M, where M is the agreed profit or mark-up taken by B. The payment of price P+M is now deferred to a future date and is made in full or in parts.

A possible scenario is when the bank would not like to directly deal with the vendor in connection with the first purchase/sale of the commodity. The bank here appoints the client as its agent. The client in this capacity would deal with the vendor as far as the first purchase/sale of the commodity is concerned. This mechanism where the client acts as the agent of the bank for the first sale transaction, may be ideal when the client requires specialized equipment and is better informed than the bank about the product(s) and source(s) of supply. As the bank deals with many clients from a variety of segments, there is a possibility that the bank may end up buying certain goods for resale to client(s),

which do not meet client specifications. In order to eliminate this likelihood, the bank appoints the client as its agent for selecting the right goods. This arrangement may also be desirable for recurring trade-financing transactions or working capital financing. *BBA-murabaha* is also suitable for purchase of fixed assets, such as, land, building, machinery and equipments, automobiles, computers, furniture and the like. In the context of long-term financing it should be remembered that *BBA-murabaha* financing products are fixed-rate products. The rate, once determined for a given contract, is not allowed to float with changes in the interest rates or any other rate.

a. The customer requests the bank to provide financing for his working capital requirements by purchasing stocks and inventories, spares and replacements, raw materials or semi finished products under the principle *murabaha*.

b. The client and the bank sign a master agreement of mutual promise governing recurring transactions. The bank purchases or appoints the customer as its agent to purchase the required goods utilizing its own funds.

c. The bank subsequently sells the goods to the customer at an agreed price on a mark-up basis.

d. The bank allows the customer to settle the sale price on a deferred term 30 days, 60 days, 90 days or any other period as may be agreed upon between the parties.

Another popular method of working capital finance is opening of Letter of Credit: This mode of trade financing is provided fully in the form of an LC instrument negotiated from foreign countries as requested by an eligible client. The total importation cost plus a pre-arranged mark-up is then repaid to the Islamic bank upon resale of the imported commodity.

6.2.2. Leasing (*Ijara*) Facility

Ijara in simple terms, implies leasing or hiring of a physical asset. It is a popular debt-based product in which the Islamic bank assumes the role of an *ajir* or *mujir* (lessor) and allows its client to use a particular asset that it owns. The client or *mustajir* (lessee) is in need of the asset. Through *ijara*, it receives the benefits associated with ownership of the asset against payment of pre-determined rentals (*ujrat*). *Ijara* is for a known time period.

Ijara, has many similarities with *BBA-murabaha*. In both cases, the bank is not a natural owner of the asset (sold under *murabaha* or given in lease under

ijara.) It acquires ownership upon receiving a request from its client. Similar to *BBA-murabaha*, the *ijara* rentals are also paid in installments over time, and are supposed to cover the cost of the asset or value of investment for the bank and to provide a fair return on investment. Both *BBA-murabaha* and *Ijara* are *Shariah*-nominate contracts that create debt. But as we shall see later, *ijara* has some unique characteristics that make it very different from *murabaha*.

In *ijara*, the bank continues to be the owner throughout the *ijara* period while the client receives the benefits of ownership or the benefits of using the asset. As such, risks associated with ownership of the asset remain with the bank and the asset is supposed to revert back to the bank at the end of the *ijara* period. In *BBA-murabaha* on the other hand, the benefits and risks of ownership of the asset are transferred to the client along with ownership. Another point of difference relates to cash flows associated with the products. Both the products involve cash outflows for client or cash inflows for the bank over a definite future time period. The cash flows are structured in a way that cover the cost of the asset and provide for a fair return on the same to the bank. However, these cash flows are predetermined in case of *BBA-murabaha* and no subsequent increase or decrease is allowed in the same. In case of *ijara*, however, the rentals could be flexible and be made to reflect the changing economic and business conditions

Since in *ijara*, ownership of the asset remains with the bank, the asset reverts back to the bank at the end of the lease period. This is called "operating lease" in conventional parlance. The bank may then lease it out to another client if the asset is in good shape. Alternatively, the bank may sell the asset in the secondary market and receive the "salvage' or residual value. Both however, are not very good alternatives if the asset in question is a specialized equipment catering to the unique needs of the first client. In this case, it would be extremely difficult for the bank to find a second client willing to take the asset on lease. In the absence of a secondary market for the asset, it may also be difficult to sell the same.

The above problem would not arise if the *ijara* period were the same as or close to the economic life of the asset. As such, there would be little or insignificant residual value in the asset. The bank may therefore, simply make a gift of the asset to the client without any reciprocal consideration or simply abandon the asset. Note that the gift contract is an independent contract, independent of the *ijara* contract.

What happens when there is a significant residual value at end of the *ijara* period, since it is much shorter than the economic life of the asset? One alternative for the bank is to sell the asset to the client at the end of *ijara* period

at a predetermined price. This structure is called lease-sale or *al-ijara-thummal-bai* (*AITAB*). Again note that the sale contract is an independent contract, independent of the *ijara* contract. You may note that the bank may make a gift of the asset even when there is significant residual value at end of the *ijara* period. The purpose of the bank is to recover its investment and a fair return on investment. This may accrue to the bank either through the periodic lease rentals plus the sale price of the asset (as in lease-sale) or simply through the lease rentals adjusted upwards in case of a lease-gift structure. Under both structures, the asset would continue to remain with the client. These are called "financial lease" in conventional parlance.

In all forms of Islamic financing it is very important for the bank to bear a certain amount of asset risk in order that its profits are deemed legitimate in the eyes of *Shariah*. Thus, in Islamic leasing all the risk and liabilities emerging from the ownership of the asset are to be borne by the lessor-bank while the liabilities arising from the use of the leased assets are to be borne by the lessee-client. In a conventional financial lease, the lessor transfers substantially the risks and rewards incidental to the ownership of the leased assets to the lessee even while the title of the leased asset may or may not eventually be transferred to the lessee. The complete transfer of risk makes the finance lease highly controversial from the *Shariah* point of view.

6.2.3. Deferred Delivery Sale (*Salam*) Facility

A *salam* is deferred delivery contract. It is essentially a forward agreement where delivery occurs at a future date in exchange for spot payment of price. Unlike earlier mechanisms of *murabaha* and *ijara*, *salam* or *salaf* was originally designed as a financing mechanism for small farmers and traders. Under a *salam* agreement, a company in need of short-term funds sells products to the bank on a deferred delivery basis. It receives full price of the products on the spot that serves its financing need at present. At a pre- agreed future date, it delivers the products to the bank. The bank sells the merchandize in the market at the prevailing price. Since the spot price that the bank pays is pegged lower than the expected future price, the transaction should result in a profit for the bank.

6.2.4. Manufacture-Sale (*Istisna*) Facility

An *istisna* is a contract of manufacture. A seller under an *istisna* agreement undertakes to develop or manufacture a commodity with clear specifications for an agreed price and deliver after an agreed period of time. The unique feature of *istisna* is that nothing is exchanged on spot or at the time of contracting. It is a pure and perhaps the only forward contract where the obligations of both parties relate to the future. The buyer makes payment of

price in parts over the agreed time period or in full at the end of the time period. In an *istisna*, the seller and the manufacturer may be different entities. This allows financiers or intermediaries like Islamic banks to engage in *istisna* by assigning the job of development, manufacture or construction to a third party under a parallel *istisna* arrangement.

6.2.5. Recurring Sale (*Istijrar*) Facility

Under *istijrar*, the company purchases different quantities of a given commodity from a single seller over a period of time. In other words, the seller delivers the total quantity of commodity purchased in installments. There is some divergence of views regarding timing of fixation and payment of price. Since *istijrar* involves repeat purchases from a single seller, some scholars see a room for flexibility in the matter of fixation and payment of price. According to this view, the payment of price may be deferred to a future date and may indeed be based on a normal price or average price prevailing in the market. This is an ideal product for working capital financing.

6.2.6. Benevolent Loan (*Qard*) Facility

This is the simplest of all financing schemes. Under this scheme, a company in need of a specific amount of funds borrows the same from a lender as *qard hasan* with or without a clear stipulation regarding the maturity date. The loan is repaid on maturity without an increment or interest. When no maturity is stipulated, the loan is repaid when asked by the lender, again without any increment. The lender is allowed to ask for an asset as collateral that is governed by the *fiqhi* rules of *al-rihn.* The lender is allowed to charge the borrower actual administrative expenses incurred in operation of the mechanism.

6.2.7. Short-term Loans Based on Repurchase (*Bai-al-Einah*)

Islamic banks in South East Asian countries have been extending short-term loans based on repurchase or *bai-al-einah*. A *murabaha* can change into *bai-al-einah* if the identity of the vendor is not different from its client; when the bank purchases a commodity from its client on a spot basis and sells it back to the client at a cost-plus price and on a deferred basis. The rate of profit in this case is indistinguishable from prohibited *riba* on a conventional loan.

6.2.8. Bill Discounting/ Factoring (*Bai-al-Dayn*)

Mainstream Islamic scholars have put a plug on the possibility of a financier earning interest through discounting bills of exchange or purchase of receivables at a discount as a factor by insisting that any sale of debt (*bai-al-dayn*) or transfer of debt (*hawalat-al-dayn*) must be at par. This means when the

bank buys the instrument of debt (*shahada-al-dayn*) from the original buyer, it is not entitled to any discount. Doors of *riba* are closed shut by disallowing any difference between what it pays (purchase price of the instrument) and what it receives on maturity (its maturity value). Notwithstanding the clear verdict against such transaction, some Islamic banks have been offering Islamic bill discounting products. They essentially treat debt as any other physical asset that can be traded at a negotiated price.

6.2.9. Tripartite Sale *(Tawarruq)* Facility

Tawarruq becomes a source of funds by combining two separate sale and purchase transactions. A client in need of funds purchases a commodity on a deferred payment basis from a bank and then sells the same in the market in order to realize cash. It takes place in the following steps.

1. Client approaches Bank with a specific need for cash;
2. Bank purchases commodity X of value equivalent to the Client's need, (say P) from Vendor.
3. Bank sells X to Client on a deferred basis for P+I.
4. Bank as Agent of Client sells X back to Vendor for P* on cash basis.

Note that P* may be different from P if prices are fluctuating in the market and there is a time gap between the various activities. The client receives P* - an amount that closely matches its financing need. Scholars have permitted *tawarruq* since it fulfills a genuine need – the need for funds. It is permitted as long as it does not violate the norms of *Shariah*. Hence, all care should be taken to ensure that it does not involve *riba*. The first and foremost requirement is the involvement of a third party in the transactions. The client must sell the commodity in the market place to a third party (activity 4). Otherwise, it would be a case of *bai-al-einah*. More important than this however, is the requirement that there must be a time gap between activities 3 and 4, i.e. between the sale by the bank to client and sale by the client in the market. This is in addition to the time gap between activities 2 and 3, i.e. between the purchase by the bank and its sale to client as in case of all permissible *murabaha*. Another condition of a valid and permissible *tawarruq* is the absence of any pre-arrangement between the three parties. There is a possibility that the three parties involved – bank, client and vendor may enter into a prior agreement under which the values P or P* or P+I need bear no relationship with the market price - cash or deferred of commodity X. On the contrary, the deferred sale to client (activity 3) may be for the loan amount plus interest, while the cash purchase from vendor (activity 1) and cash sale to vendor (activity 4), may be for the amount that the client needs

to borrow. Indeed, in an arrangement in which all parties connive, the sequence of activities does not matter.

In *tawarruq*, therefore, one needs to exercise extra care and subject the product to an additional dose of investigation before accepting it as *Shariah*-compatible.

7. Sources of Finance: Financial Markets

Companies may raise funds directly from the financial markets. In this section, we shall briefly describe the various components of financial markets. We would seek to understand how Islamic financial markets compare with their conventional counterparts.

1. *Primary and Secondary Markets:* Financial markets may be divided into primary and secondary markets. A primary market represents the point at which financial products and securities are first offered by SDUs. A secondary market is one in which initial buyers resell their products and securities before maturity. Products and securities can be sold only once in a primary market; all subsequent transactions take place in secondary markets. The function of secondary markets is to provide liquidity to the products.

2. *Money and Capital Markets:* Financial markets may be classified by the maturity of financial products traded. The money market trades short-term debt instruments with maturities of one year or less. The purpose of capital markets is to channel savings into long-term productive investments. Capital markets encompass all long-term debt instruments and equity obligations.

3. *Spot Market and Futures Market:* The spot market is the market in which products, such as, stocks, commodities or foreign currencies are traded for immediate delivery and payment. The spot market is also called the cash market. The futures market is the market in which products are traded for future delivery at a specified price.

4. *Option Market:* The option market is the market in which instruments are traded for conditional future delivery. Typically, an option gives a party the right without any obligation, to buy or sell a product, such as, stocks, commodities or foreign currency.

5. *Foreign Exchange Market:* The foreign exchange market is the market in which foreign currencies are bought and sold. Foreign currencies are traded either for spot or future delivery.

7.1. Primary and Secondary Market

The process of raising equity capital involves several stages. An important consideration is whether the company is private or, public. Private companies are, as the name implies, privately held. A private company has a small number of shareholders and owners need to disclose very little information about the company. Most small businesses are privately held. Of course, there are also many large private companies. It is usually not possible to buy shares in a private company. A public company, on the other hand, is one that has sold at least a portion of itself to the public and trades on a Stock Exchange. The first sale of stock by a company to the public is called an initial public offering (IPO) and doing an IPO is referred to as "going public." Public companies have thousands of shareholders and are subject to strict rules and regulations. The stock of a public company is traded in the open market like any other commodity and no investor can be prevented from buying such a stock. A major reason why companies go public, needless to say, is their enhanced ability to raise funds. However, only private companies with strong fundamentals may qualify for an IPO. The average investor or public is not interested in small and start-up companies that are yet to have a track record of sound performance. When a company is in the initial stages of its life cycle, it must remain private. Its needs are met through what is known as venture capital (VC) financing. The company goes for a private placement which is a method of issuing securities in which the issuer sells the securities directly to the ultimate investors. It seeks the help of an investment bank whose role is to bring buyer and seller together, to help determine a fair price for the securities, and to execute the transaction.

There is nothing inherently unethical about the involvement of investment bankers in the process of raising funds through venture capital and private placement or an IPO as long as the securities that are created in the process are *Shariah*-compliant. In fact, the process of resource generation and allocation becomes more efficient as the investment bankers bring in their

expertise in pricing, timing, and marketing the stocks (unless of course, the expenditure in the form of fees and commissions outweigh the benefits).

Venture financing in which an investment bank buys private equity in start-up companies is Islamically permissible and desirable too. It adds to the efficiency of the system. Due to the presence of gross information asymmetry between the investors and promoters in case of early-stage companies, investment may involve *jahl* and *gharar* on the part of the uninformed investors. The information asymmetry, however, does not exist with respect to the investment bankers who are supposed to undertake a very careful scrutiny of the future prospects in light of information made available to them, often by the promoters. In the second phase these investment bankers off-load stocks when the company has already built up a track record. Thus, at this stage information asymmetry is far less and an average investor is in a position to take an informed decision that could be relatively free from *jahl* and *gharar*.

Now let us turn to the process of IPO. One method of offer and sale of securities in an IPO is the "tender method" under which different investors bid for the securities. The process is permissible and quite desirable too, provided adequate safeguards are in place against the forbidden practice called *najash*. In case of *najash*, while a transaction is in the process of being concluded between two parties, the seller and the buyer, a third party interferes with the intention of increasing the price of the buyer. The second buyer in *najash* is not a genuine buyer but he is there only to bid up the price for the buyer without any intention of purchase. In the tender method, therefore, it should be ensured that all the bidders are genuine.

Another method of offer and sale is underwriting of securities in which the investment banker i) makes a wholesale purchase of all the securities to resell them to retail investors at a later date at a profit or; ii) brings together the potential buyers and sellers together in consideration for a fee or commission, also called best-efforts underwriting or; iii) bears the risk of under-subscription by the investors. The first method in case of existing and sound companies is unnecessary and may be used in certain cases when the investment banker has enormous monopoly power. This is undoubtedly unhealthy both from the standpoint of Islamic ethics and efficiency. The second method is obviously Islamically permissible and also enhances efficiency in general. The third method is a form of insurance against under-subscription. The underwriting commission in this case is similar to insurance premium. The obligation on the part of underwriter arises only when there are not enough buyers in the market. This kind of contract obviously involves a lot of uncertainty and raises issues of permissibility.

Market participants in the after-market or secondary market broadly fall into two groups. The first and often the more dominant group comprises speculators who are generally defined as having a short time horizon and an intention to benefit from short-term price fluctuations. The second group comprises value-investors who are generally defined as having longer time horizon and an intention to benefit from long-term capital appreciation due to a genuine increase in value of the stocks. The presence of speculators in the market is tolerated and often encouraged by regulators, because their presence is supposed to increase volume of transactions, liquidity, and bring down transaction costs. The market microstructure is often designed to facilitate such speculation, such as, through margin regulations. Islamic scholars have however, always been uncomfortable with the possibility of speculation on stock markets. Some have conveniently compared stock markets with gambling casinos and are of the view that these have no place in an Islamic system, notwithstanding the level of discomfort with a complete prohibition. Activities of investment bankers or fund managers, to the extent these are speculative or encourage speculation, have no place in an Islamic system. Brokerage services should therefore, not permit borrowing and/or lending on interest or margin trading and trading activities must not involve borrowing and/or lending on interest or margin trading. And as noted in the context of primary market, investment bankers must avoid brokerage services for stocks that are not permissible. However, note that scholars are not in favor of pronouncing the entire game as forbidden. A large chunk of the activities of the investment banker, such as, informational services to investors may indeed encourage value investing.

Let us now turn to the types of Islamic securities and how these are created. The process may take two forms – through (i) direct structuring of securities and (ii) a process of asset-securitization. The former is a process under which securities are issued first; funds raised through the issue are then invested in creation of specific types of assets/ projects with the client-company and subsequently the income generated from the assets/ projects is distributed among security-holders. The latter is essentially a reverse process under which existing assets with client-company (in need of funds) are identified, pooled and then securities are issued against them. Let us first turn to direct structuring of securities.

7.1.1. Direct Structuring of Securities

An investment bank may structure securities keeping in mind the nature of financing requirement of the client-company. The choice is broadly between participatory or equity securities and debt securities. While equity securities are smaller in variety, such as, *mudaraba*, *musharaka* or diminishing *musharaka*,

debt securities come in larger variety. Essentially, almost all financing mechanisms discussed so far in the context of commercial banking are also relevant for the investment banker. The difference however, is that the client-company, instead of approaching an intermediary, now directly issues and sells instruments to the investor community. For instance, instead of availing a *murabaha* credit facility/ *ijara* facility from an Islamic commercial bank, the company now issues *murabaha*/ *ijara* securities (*sukuk*) to the investor community.

The process involves creation of a special purpose vehicle (SPV) or a special purpose *mudaraba* (with a distinct identity) by the company in consultation with its investment bank for this purpose. The investment bank or the company may act as a *mudarib* of this SPV-*Mudaraba*. The SPV-*Mudaraba* is entrusted with the task of issuing securities to the investing public, raising funds and investing the same in specific types of assets/ projects in order to meet the requirements of the company. The SPV-*Mudaraba* now "owns" the assets/ projects and the income from the assets/ projects are "passed through" to the holders of the instruments after deducting the *mudarib's* share in it.

An alternative method may be the appointment of the investment bank as an agent or *wakil* of the prospective investors in securities under a *wakala* arrangement. The bank as the agent of all investors undertakes to invest the funds in specific types of assets/ projects and then to pass on all future income from the assets/ projects to investors after deducting its fee.

7.1.1.1. Islamic Debt Securities

In case of *sukuk-al-murabaha* the SPV-*Mudaraba* invests the funds raised through sale of *sukuk* in *murabaha-BBA* operations. In this exhibit, the company purchases the asset from SPV on a *murabaha-BBA* basis. The periodic installments paid by the company in future to SPV account for the repayment of the cost and a profit component. Since these future cash flows that are passed on to the investors can be predicted with reasonable degree of certainty and accuracy, the instrument yields a predetermined return on investment like the conventional debt instrument. The major point of difference however, is the asset-backed nature of the *murabaha* instrument. A potential problem with *sukuk-al-murabaha* is that these cannot be traded in the secondary market at a negotiated price and hence, are not liquid. *Murabaha* receivables are in the nature of pure debt and hence the instrument that is an evidence of such debt (*shahada-al-dayn*) can be transferred only at its face value.

Ijara has been suggested as an ideal alternative for structuring debt securities. *Sukuk-al-ijara,* sometimes referred to as *ijara* bonds or *ijara*

certificates are created when the funds raised by the SPV-*Mudaraba* are invested in *ijara* operations. The SPV-*Mudaraba* issues *sukuk-al-ijara* to investors; raises funds and utilizes the same for purchase of the assets (required for use by the company). The assets are then given on lease to the company in exchange for periodic rentals. The *ijara* rentals when received by SPV-*Mudaraba* from the company (as per the terms) are passed through to the holders of the instruments. Unlike *murabaha*, the *ijara* instrument is not evidence of debt, but of a pro-rata ownership of the asset(s) that is on *ijara*. As such, the instrument can be freely priced in the secondary market and can change hands at any negotiated price.

Salam-based securities may be created and sold by an SPV under which the funds mobilized from investors are paid as an advance to the company SPV in lieu of a promise to deliver a commodity at a future date. All standard *Shariah* requirements that apply to *bai-salam* also apply to *sukuk al-salam*, such as, full payment by the buyer at the time of effecting the sale, fungibility or standardized nature of underlying asset, clear enumeration of quantity, quality, date and place of delivery of the asset and the like. At the same time the SPV can appoint an agent to market the promised quantity at the time of delivery perhaps at a higher price. The difference between the purchase price and the sale price is the profit to the SPV and hence, to the holders of *sukuk*. Such *sukuk* obviously involve market risk as the price of the underlying asset may go down instead of moving up in future.

The market risk or price risk for the investors can be mitigated if a third party makes a unilateral promise to buy the commodity at a predetermined price at a future time period. Since the SPV representing investors need not participate in the market, it would be insulated from price risk. This third party may be one of the prospective customers of the company. The unilateral promise is binding on this customer. Once the rights resulting from the promise are transferred to the SPV, it assumes the role of seller to the third party customer at the specified future date. The SPV is able to realize a higher predetermined price without participating in the market. The risk mitigation can some times come through sovereign guarantees.

Istisna-based instruments or *sukuk* may be created in a similar fashion. Under such a scheme the SPV representing investors becomes seller-contractor-manufacturer of an asset to a buyer (say, the government) and uses back-to-back *istisna* for creation of the facility. In other words, the SPV takes upon itself the legal responsibility of getting the facilities constructed, and sub-contracts the work to manufacturers/contractors. The deferred price that the buyer will pay may be in the form of *sukuk* that are an evidence of indebtedness (*shahadah al-dayn*) whose total face-value exactly equals the total deferred price. These *sukuk*

may have different maturities to match the installment plan that has been agreed upon by the two parties. They represent buyer's debt and hence, *Shariah* precludes sale of these debt certificates to a third party at any price other than the face value of such certificates.

A comparison of various methods of creating fixed income debt securities based on the classical Islamic contracts of *BBA, murabaha, ijara, salam* and *istisna* reveals that of all these, *salam*-based instruments seem to be too restrictive in scope. *Istisna*-based instruments are quite useful for financing large infrastructure projects, while *murabaha* and *BBA* based instruments are useful for financing trade. Both however, involve sale of debt or receivables and hence suffer from the restrictions on their negotiability. A secondary market in these instruments is almost ruled out. Compared to these, *ijara*-based instruments are free from all these constraints. *Ijara* seems to offer maximum flexibility in terms of negotiability, management of price risk etc. and hence *sukuk-al-ijara* are expected to play a significant role in development of an Islamic debt market.

7.1.1.2 Islamic Equity Securities

Similar to the process of creation of Islamic debt securities, when our SPV is required to invest the proceeds from sale of securities in equity-based contracts, such securities would be in the nature of Islamic equity securities. Equity-based contracts involve partnership and sharing of risk and reward in a venture. Contractual mechanisms involving such sharing or partnership are broadly discussed under the category of *mudaraba* and *musharaka*. Modern equity securities or common stocks also fall into this broad category. The latter need no introduction. Organized markets for stocks exist in most economies all over the globe. These are presently the most important form of risk capital or owners' capital in modern business ventures.

7.1.2. Asset Securitization

Investment bankers may also create securities through a process called asset securitization. This process is reverse and involves pooling of existing assets of a company and then issuing of securities against these assets. The process begins with identifying income-generating assets of a company and estimating the nature and quantum of expected cash inflows from these assets. The assets are then transferred into the hands of a special purpose vehicle (SPV) organized as a *mudaraba* that is specifically created for this purpose. The investment banker may perform the role of *mudarib* in the SPV-*Mudaraba*. Against these assets and expected income from assets, which can be estimated with reasonable degree of accuracy, the SPV-*Mudaraba* issues securities that are sold to investors. The income stream in future is passed on to the security-

holders after deducting a certain percentage for the *mudarib*. Securitization is attempted mostly for creation of fixed-income securities. We therefore discuss *the process* in the context of *murabaha* and *ijara* alone. An issue that is of utmost significance in the process of securitization involves sale and buy-back (*bai-al-einah*) as compared to sale and lease-back. Another controversial issue relates to sale or transfer of receivables or debt (*bai-al-dayn*). First we discuss the controversial case of securitization of *murabaha* and *BBA* as being practiced in Malaysia.

What is to be noted in the above process is the use of sale and buy back (*bai-al-einah*) which effectively amounts to *riba*-based borrowing. Sale and buy-back of asset enables delinking of the financing from the underlying asset. The mechanism therefore, is not acceptable in the Islamic framework. Nevertheless, it has been widely used by investment bankers in Malaysia. Another forbidden mechanism is used to impart liquidity to the instruments – sale of debt at a discount or at a negotiated price (*bai-al-dayn*). The *sukuk-al-murabaha* created through the aforesaid mechanism can now be traded freely at any mutually negotiated price (that is invariably lower due to discounting of debt). The end outcome of such practice is the emergence of a vibrant market in bonds that is Islamic in name, but conventional in every other sense.

The above problems are taken care of in *ijara*-based securitization. It should be noted that while sale-and-buy-back frees the financing from any linkage with the underlying assets, a sale-and-lease-back does not. The former is adjudged equivalent to *riba*-based borrowing and lending while the latter is not. The process of *ijara*-based securitization involves transfer of ownership and consequently, all risks and rewards of ownership of existing assets of the company to the SPV representing investors. Each investor now becomes a part-owner of the group of assets. The assets are then given on *ijara* against future rental payments. What makes this mechanism different from the earlier one is that the investors continue as owners of the assets. The investors are exposed to risk associated with ownership of assets and also to risks associated with rental payments. At times, a third party, such as, the government is willing to bear or share in such risks making the Islamic equivalent of treasury bills or gilts. Note that we have used this security as the Islamic risk-free asset in explaining Markowitz portfolio optimization in Chapter 3.

7.2. Spot and Futures Market

In a forward contract two parties undertake to complete a transaction at a future date but at a price determined today. The two parties could be a producer who promises to supply the product (underlying asset) and a consumer who

needs the product on a future date. If the price of the product is highly volatile, then both are exposed to a risk. The producer is exposed to the risk of a price decline, while the consumer is exposed to the risk of a price increase. Both parties can now hedge against their respective risks by entering into a forward contract. It may be noted that in the process, they also lose the potential for making a gain due to price change. There is a second benefit to this. Since both parties have "locked-in" their price/cost, they would be in a much better position to plan their business activities.

Forward contracts, when standardized - with respect to contract size, maturity product quality, place of delivery etc., backed by the intermediation of an organized exchange, are known as futures. Futures are believed to add more to the efficiency of the system by getting rid of the problem of double-coincidence of needs and counterparty default risk. Further, with exchange trading, another problem with forward contracts, that of being possibly locked into unfair price would not exist. This is because each party is a price taker with the futures price being that which prevails in the market at the time of contract initiation.

The most significant objection against futures is that these are invariably settled in price differences only and never result in actual delivery of the object of exchange. The unique feature of a future or forward contract is that the settlement of the transaction is entirely deferred to a future date. Since, both the buyer and seller enter into an obligation to deliver the price and object of exchange respectively on a future date, the transaction essentially boils down to exchange of a debt for another debt or *bai-al-dayn-bi-al-dayn* or *bai-al-kali-bi-al-kali*. Such *bai* is expressly forbidden according to almost all Islamic schools of jurisprudence and scholars.

A future contract also clearly violates the *Shariah* prohibition of sale of the non-existent or sale of what one does not have on grounds of *gharar*. It may be noted here that scholars, on grounds of public necessity, have yielded some flexibility in the matter of *gharar* in settlement of contracts. For generic products, scholars have permitted *salam* sale, that is, sale of what one does not have, but what one is reasonably sure of bringing into existence. Even in this case, the scholars have insisted that one end of the contract must be settled on the spot, that is, the buyer must give delivery of the *thaman* or price at the time of contracting to the seller. It is the seller's obligation that is deferred to a future date.

Contemporary scholars have also permitted several forms of *bai* where settlement from both ends can be deferred to a future date. The first is the case of *bai-istisna* or a contract to manufacture. In this specific case, the buyer and

seller-manufacturer are under no constraint to settle the transaction at least from one end at the time of contracting, unlike *salam*. The second is the case of *bai-istijrar*, or repeated purchases from a single seller. Here too, the scholars provide much more flexibility, such as, deferment of both payment of price and delivery of object of exchange to a future date and fixation of price on the basis of average market prices etc.

It is interesting to note the reasons for such flexibility. *Bai-istisna* and *bai-istijrar*, like *bai-salam* have been permitted on grounds of public need. But the unique characteristic of *salam* is that it involves a generic fungible commodity which can be easily found in the market place and hence, *gharar* in the sense of settlement risk is not substantial. The same is true of *bai-istisna* and *bai-istijrar*. Risk of a manufacturer or a repeat-seller being able to deliver the product is obviously minimal. When we consider the possibility of speculation however, the case of *bai-salam* is different from the other two. *Salam* involves a generic fungible commodity, which can be easily found in the market place. As such, if deferment of settlement by both the parties is permitted, it can be easily used for large-scale speculation on price differences. Such permissibility in case of *bai-istisna* or *bai-istijrar* cannot be abused for speculation on price differences. This perhaps explains why scholars insist on full payment of price at the time of contracting in case of *bai-salam* and not in case of *bai-istisna* or *bai-istijrar*.

7.3. Options Market

Another basic derivative product, which facilitates risk management is option. While a future contract enables easy hedging by locking in the price at which one could buy or sell, it also implies that one could not benefit from subsequent favorable price movements. Further, futures (and forwards) are unsuited for the management of contingent liabilities or contingent claims. These are liabilities or claims on a business entity that could arise depending on an uncertain outcome. An option contract, which provides a right to buy or sell without any obligation can handle such uncertainties.

All exchange-traded options come in two types - call options and put options. A call option entitles the holder the right but not the obligation to buy the underlying asset at a predetermined exercise price at or anytime before maturity. A put option on the other hand entitles the holder the right but not the obligation to sell the underlying asset at a predetermined exercise price at or before maturity. Since options provide the right but impose no obligation, the holder exercises its option, only if it is favorable for him to do so. This absence of obligation to exercise provides increased flexibility and is the key advantage

of options over forwards or futures. The buyer of the options pays for this privilege by paying the seller a non-refundable premium. The maximum possible loss to a buyer of an option is therefore limited to the premium he pays. This loss occurs if he chooses not to exercise the option. In most other respects, trading methods, contract specification etc., the exchange trading of options is similar to that of futures.

The majority view of *Shariah* scholars is that an option is a promise to sell or purchase a thing at a specific price within a stipulated time and such a promise cannot be the subject matter of a sale or purchase. The most significant objection against options is that these are invariably settled in price differences only and never result in actual delivery of the object of exchange.

Some scholars have also attempted to justify permissibility to options by drawing a parallel with *bai al-urbun. Urbun* refers to a sale in which the buyer deposits earnest money with the seller as a part payment of the price in advance but agrees that if he fails to ratify the contract he will forfeit the deposit money, which the seller can keep. A call option is similar to *bai al-urbun* in the sense that the seller does not return the premium or advance payment to the buyer in case the latter does not exercise the purchase option and does not confirm the contract. However, in case of a call option, the buyer loses the option premium even if the option is exercised and the contract is confirmed. In case of *bai al-urbun*, however, the option premium is adjusted in sale price when the contract is confirmed. Permissibility to *bai al-urbun* is granted by the Hanbali school that is also found acceptable by most contemporary scholars. The counter viewpoint is that the retention of earnest money or premium by the seller is akin to misappropriation of the property of others and hence is not permissible.

Therefore, there cannot be an Islamic market for options as independent contracts. Options can however, be in the nature of embedded features in exchange contracts.

7.4. Currency Market

The Islamic law of contracts explicitly deals with exchange of currencies. There is a general consensus among Islamic jurists on the view that currencies of different countries can be exchanged on a spot basis at a rate different from unity. There also seems to be a general agreement among a majority of scholars on the view that currency exchange on a forward basis is not permissible, that is, when the rights and obligations of both parties relate to a future date. However, there is considerable disagreement among jurists when the rights of

either one of the parties, which is same as obligation of the counterparty, is deferred to a future date.

To elaborate, let us consider the example of two individuals A and B who belong to two different countries, India and US respectively. A intends to sell Indian rupees and buy US dollars. The converse is true for B. The rupee-dollar exchange rate agreed upon is 1:20 and the transaction involves buying and selling of $50. The first situation is that A makes a spot payment of Rs1000 to B and accepts payment of $50 from B. The transaction is settled on a spot basis from both ends. Such transactions are valid and Islamically permissible. There are no two opinions about the same.

It may be noted here that the real life spot markets for currencies often provide for actual delivery within 48 hours or two financiering business days due to practical reasons (for example, time differences among various global markets). Some authors have argued that the above practice of allowing a two-day lag cannot be accepted in the Islamic framework. Others consider this position to be too rigid and find this practice to be Islamically acceptable on the ground that the so-called time lag involved in the spot transaction is not a time lag between the delivery of one currency compared to the delivery of the other, but rather is a lag between the deals date and the execution date. Further, even if there is a time lag, the same does not affect the price or the exchange rate between the two currencies involved.

The second possibility is that the transaction is partly settled from one end only. For example, A makes a payment of Rs1000 now to B in lieu of a promise by B to pay $50 to him after six months. Alternatively, A accepts $50 now from B and promises to pay Rs1000 to him after six months. There are diametrically opposite views on the permissibility of such contracts. The Fiqh Academies across the globe have been deliberating on the permissibility of such contracts. Such contracts are however, not very common in the conventional financial markets.

The third scenario is that settlement of the transaction from both ends is deferred to a future date; say after six months from now. This implies that both A and B would make and accept payment of Rs1000 or $50, as the case may be, after six months. Such contracts are known as currency forwards and futures in mainstream finance. The predominant view is that the contracts are not Islamically permissible.

Yet another form of contracting, which has been described as, an Islamic swap may be as follows. A makes a payment of Rs1000 to and receives US$50 from B today at the given rate 1:20. Both A and B use and invest the money so

received at their own risk. At the end of a stipulated time period, say six months, the transaction is reversed. A repays US$50 to and receives Rs1000 from B. This form of contracting can also be viewed as an exchange of or swapping of interest-free loans between A and B. This is in contrast to conventional swaps, which are generally interest-based and involve swapping of principal (often notional) and interest payments. Conventional swaps clearly have no place in the Islamic system. Islamic swaps may help both A and B in various ways, such as, enabling them to manage their currency risk. There are again divergent views on the permissibility of such contracting.

The other common form of currency-related contracting in mainstream finance relates to purchase and sale of currency options. Scholars who consider that currency exchange must be settled on a spot basis rule out the possibility of any option for either or both parties. The currency option if considered as a promise, is not binding as the two parties cannot agree in advance to the rate to be applied for currency exchange in future according to the traditional Islamic law.

8. Cost of Capital and Financing Decisions

How much debt a company should use? Does debt policy matter? These are questions every financial manager invariably faces in the course of financial management of the company. Standard text books on corporate financial management devote considerable space to addressing these questions. Known in modern financial jargon as capital structure decision or financing decision, these involve deciding on specific proportions of total capital requirements of a company that would be financed through debt (borrowed funds) and equity (owned funds). Such decision is preceded by a detailed analysis of the impact of alternative financing mix (of debt and equity) or capital structures on the value of the company. Assuming that the goal of a finance manager is to maximize value of the company, a particular financing mix or capital structure is deemed optimal that maximizes such value. Essentially, the decision involves a search for an optimal combination of debt and equity. Textbooks present several alternative theories that seek to explain how this decision *ought to be* taken. They also seek to explain how these decisions *are* taken in real-life.

8.1. Cost of Capital and Value of Firm

The analysis proceeds as follows.

1. Debt (D) is cheaper than equity (E). This is so for two reasons:

a. Returns on debt to debt-providers or lenders are predetermined. Hence, debt is perceived to be less risky. Human beings dislike risk. Hence, they require a lesser compensation for a less risky alternative. Returns on equity to equity-providers are volatile, not predetermined and hence,

are perceived to be riskier than debt. Equity-providers therefore, require a greater compensation or risk-premium for parting with their funds as compared to debt-providers. The cost of debt (K_d) is, as a consequence, less than the cost of equity (K_e). We have discussed the CAPM framework earlier that enables us to estimate the risk-premium on a particular security using the concept of beta.

b. Conventional financial systems invariably provide tax-related advantage to firms on the quantum of interest payment on debt. In simple terms, companies pay *less* tax on their income if they use debt in lieu of equity. Taxable income is computed after interest is deducted as an expense while taxable income is not affected by payment of dividend out of after-tax income. The tax-benefit arising solely out of use of debt in lieu of equity further brings down the cost of debt. If the tax rate is t, then tax related benefit amounts to t-times-interest and the after-tax cost of debt kd is Kd(1-t).

2. The value of a firm is an estimate. It is estimated as the present value of all future cash inflows discounted at an appropriate rate. The traditional approach is to treat the overall cost of capital (K_o) (a compensation for overall business risk of the firm) as the rate of discount.

$$V = \sum A_t/(1+K_o)^t; \quad t=1\ldots\ldots n.$$

For simplicity sake, if we assume the future cash inflow to be a constant stream at A' and life of the project to extend to perpetuity then,

$$V = A/K_o$$

3. Overall cost of capital is a weighted average of specific costs of capital. If w_d stands for the proportion of debt D and w_e stands for the proportion of equity E in total capital, then $K_o = w_d K_d + w_e K_e$; $w_d + w_e = 1$.

It is assumed that the firm may opt for an all-equity capital structure or an all-debt (100% debt plus a nominal equity as evidence of ownership of firm) capital structure, or any combination of debt and equity (say 25% debt plus 75% equity, or 50% debt plus 50% equity, or 75% debt plus 25% equity and so on and so forth).

Textbooks on conventional finance offer alternative answers to the questions: how much debt should a firm use? Or what is the optimal capital structure? The optimal capital structure would be one that maximizes the value of the firm V.

a. The famous Miller-Modigliani (MM) theory addresses this question saying that capital structure or financing decision is simply *irrelevant* for the value of the firm. It asserts that V would remain unchanged irrespective of the proportion of debt in the total capital. MM's Proposition I states that all combinations of debt and equity are equally good. This is demonstrated by a simple "arbitrage" proof explained with numerical examples. Proposition I can be generalized as the **law of conservation of value**: The value of the pie is independent of how it is sliced. Operating income vs. EPS analysis is explained, using numerical examples.

   Value of firm V is determined by K_o that in turn, is determined entirely by the business risk of the firm and that remains unaffected by changes in capital structure due to higher or lower leverage or use of debt. The benefits of increased use of low-cost debt is exactly offset by a steady rise in the cost of equity as equity providers perceive greater risk of default leaving the weighted average unchanged. This idea is presented as MM's Proposition II, relating the equity capitalization rate to leverage. It is shown how use of debt affects the equity beta and how capital structure changes affect the return on equity.

   A finance manager therefore, would logically be indifferent between debt and equity as it is of no consequence to the value of the firm. It should be noted here that Miller and Modigliani initially assumed a tax-free environment in postulating their hypothesis. Their framework was modified subsequently for the existence of taxes. In the modified framework there would be some increment in value with increased use of debt because of tax-benefits that accrue with use of debt.

b. In sharp contrast to MM the traditional view asserts that since debt is cheaper than equity, increasing the proportion of debt in total capital would bring down the overall cost of capital and hence value of firm would increase. In other words, since $K_d < K_e$, K_o would keep going down as the proportion of debt w_d is increased. V would therefore start to increase. The increase in V would however not sustain for a long time. As the proportion of debt w_d increases beyond a certain threshold, the market would begin to perceive increasing risk of default. This would push both cost of debt K_d and cost of equity K_e upwards. The result is that the initial fall in overall cost of capital K_o would be arrested. Further increments in debt would in fact witness an increase in overall cost of capital K_o that would lead to the decline in value of firm V. Thus, this answer asserts that there is an optimal capital structure or

an optimal value for w_d where K_o would be minimized and therefore, V would be maximized.

There is still another view that argues that the choice of capital structure is a *marketing* problem. The problem is to find the combination of securities that has the greatest overall appeal to investors and therefore maximizes the market value of the firm.

8.2. Debt and Equity in an Islamic Economy

With this background we now proceed to discuss capital structure decisions by a firm in an Islamic economy.

First in terms of the framework, we can see **why interest-bearing debt is an unethical option**. Let us begin with an all-debt firm that is financed by an interest-bearing bond.

The valuation of any business/bond is the sum of the expected cash flows each discounted by the expected rate of return for the timing of the expected cash flow. As before, we may use a framework where value is determined by discounting a constant perpetual cash flow at an appropriate rate.

$$V \text{ (Business)} = A / K_o \quad \text{---------- (1)}$$

$$V \text{ (Bond)} = A / K_d \quad \text{---------- (2)}$$

If Kd is equated to Ko, we have a theoretical case of a real-life *debt-only* firm. The annual cash flows received from the firm are passed on entirely to the bond holder.

The real world unfortunately is not as simple as the above equations. While the cash flows to bondholder may be contractually determined and obligated by law to remain constant at A' (in equation 1), the cash flows generated by the business (in equation 2) are not. In fact, A' in equation 2 is the expected value of all possible cash flows under different scenarios – good and bad.

Given the peculiarity of the case, the following possibilities emerge. It is possible that the business returns cash flows higher or lower than A'. If corporate cash flows exceed A' then the bond holder would still be entitled to A'. However, what if the corporate cash flows are less than A'? In this case, the bondholder can hope to receive the *actual* cash flow only. So how do we make the payments of the bond more secure and certain? The answer is: the bond payments need to be divorced from the corporate cash flows. This is the point

where equity moves in. If the cash flow of the bond is to be made more secure and certain, it can only be done at the expense of someone else. This is by the following methods or a combination of them.

a. reduce the percentage of the debt from the 100% in the above example i.e. bring in someone else's equity to ensure the bond payments.

b. coupled with (a) above, offer collateral on the key business assets to the debt holder in preference to the equity holder.

Hence, we see the bondholder is now less concerned about the cash flows of the business and is only concerned about the cash flows related to servicing of the bond. This is clearly an unethical outcome. However, could this be the reason why interest-bearing debt has no place in the Islamic economy? If so, how is the situation different in case of the so-called Islamic debt securities? Like interest-bearing bonds, Islamic bonds also involve pre-determined payments to the bond-holders. Replacing so-called Islamic debt with interest-bearing conventional debt is not going make things any more ethical. Does the Islamic debt-provider partake in business risk of the firm or is he equally unconcerned about cash flows from business? We find that in case of Islamic debt creating vehicles through *hiyal*, such as, *ijara* in the form of financial lease or *tawarruq* or even *murabaha* there is no scope for risk-sharing in any manner by the fund-provider.

A related counter question may be: Is it always ethical to expect the fund provider to share in the risks of the business, especially when he/she does not participate in management of the business? Scholars of Islamic jurisprudence have shown a clear reluctance to pronounce the above forms of Islamic debt as illegal and forbidden. These are at worst, deemed controversial. Digressing from the issue of legality, there is another interesting dimension to the so-called Islamic debt that we discuss below.

If we compare an Islamic debt product with its conventional counterpart, we find that the Islamic debt product involves additional conditions and constraints (and multiple transactions to transform the conventional product into Islamic). For example, between *tawarruq* and its conventional counterpart – a simple unsecured interest-bearing loan, the former obviously is more cumbersome. It involves several procedural requirements, such as, purchase of a product by bank from vendor as agent of the customer, selling the product on cost-plus and deferred payment basis to the customer and again reselling the product in the market as agent of the customer for cash. Additional procedural and legal requirements of *hiyal* always bring additional legal and transaction

costs. This holds good in case of almost all Islamic debt products that have recently appeared on the scene.

Therefore, Islamic debt is costlier than conventional debt.

Does this however, imply that *Shariah*-compliance leads to inefficient outcomes and greater costs to the economy? Before, we move on to this sweeping conclusion, we must remember that the additional-cost hypothesis is true only for Islamic debt products and not for genuinely Islamic equity products based on risk-sharing. The former are borne out of an attempt to transform conventional debt products (such as, unsecured personal loan) targeted at Muslim customers (who are increasingly uncomfortable with conventional products) into products that are Islamic in form, but not in spirit. Innovative financial engineering is employed to design such products which *cannot* be clearly labeled as forbidden. Notwithstanding the inclination of modern bankers to engage in *Shariah* arbitrage to exploit windows of opportunities, a financial analysis of the above scenario would lead to an interesting conclusion. Islamic debt is costlier than conventional debt. If we use the notation D_i as Islamic debt and cost of such debt as K_{di}, then clearly $K_d<K_{di}$.

Without redoing the Miller-Modigliani equations, we can argue that our Islamic world would be similar to Miller-Modigliani world in terms of absence of any tax-related benefit to interest-based debt. The most celebrated conclusion of Miller-Modigliani theory is that the value of firm is unaffected by changing the proportion of debt where K_d is the relevant cost of debt. It requires only high school arithmetic to see what would happen to value of firm when costlier K_{di} is replaced with K_d. The value of firm V would decline. Does this mean that Islam discourages debt and encourages equity? The optimal capital structure under this formulation would be 100% equity.

8.3 Factors Affecting Capital Structure

Since MM's theory of capital structure irrelevance, many alternative theories have appeared on the scene, many of which show that financing matters in an imperfect world with taxes, frictions in the markets, brokerage costs, etc. While no universal theories of capital structure exist, some theories try to explain the debt-equity ratios in different firms.

This section discusses the factors, which influences the choice of corporate financial structure. These factors include corporate and personal taxes, costs of bankruptcy and financial distress, asymmetric information, and agency costs. It also discusses the trade-off theory and the pecking-order theory.

8.3.1. Taxes

A variant of the MM theory shows how the tax-deductibility of interest payments increases the *total* income that can be paid out to bond-and stockholders. The potential present value of interest tax shields can be very large. Then MM's "corrected" Proposition I is derived: Value of firm = value if all-equity-financed + PV of interest tax shield.

The corrected Proposition I is unaffected by introducing personal taxes as long as all personal income is taxed at the same rate. However, the lower effective tax rate on capital gains can encourage equity financing. Under Miller's theory, the supplies of debt and equity adjust until the total tax burden on a marginal dollar of operating income is the same whether the dollar is paid out as interest or as equity income.

8.3.2. Costs of financial distress

This theory of 'optimal capital structure' says that the firm balances the present value of interest tax shields against the present value of costs of bankruptcy or financial distress. The texts explain what a bankruptcy cost is and how it affects current firm value, emphasizing that the present value of these costs come out of stockholders' pockets. For large firms, the direct costs of bankruptcy seem to be a small percentage of firm value. The indirect costs are sometimes significant, however. Also, firms can suffer costs of financial distress even when bankruptcy is escaped. These costs reflect conflicts of interest between bond- and stockholders. There is a temptation for the firm to "play games" at existing bondholders' expense – for example, by shifting the risk of the firm's assets. These games are costly to play and costly to safeguard against. Thus, it may be better to avoid temptation by limiting the amount of debt issued. For instance, a moral hazard problem may arise if the firm invests in riskier projects after credit have been provided. The creditors need to be careful that the firm does not invest in excessively risky projects as a failure in project may result in a default on debt. To avoid such problems the creditors monitor the firm's activities, advance credit against collaterals, and design contracts that imposes restrictions on the use of funds through covenants.

The "trade-off" theory suggests that firms balance the tax advantage of borrowing against the costs of financial distress. This theory successfully explains many industry differences in capital structure but cannot explain why many successful companies have little debt.

The scenario for an Islamic firm with respect to interest tax shield is quite clear. Tax shield on interest is non-existent in an Islamic economy. Hence, "trade-off" theory would be largely irrelevant for an Islamic firm.

While there would be no tax shield for interest as there would be no interest, the cost of financial distress under the Islamic framework would be quite relevant. Islamic debt would need to be serviced the same way as conventional debt (albeit at a higher rate). Like conventional debt Islamic debt would involve direct and indirect costs of bankruptcy and financial distress. What distinguishes Islamic debt from conventional debt is that the former is necessarily asset-backed and hence, the quantum of total debt now would be bounded by the tangible assets in ownership of the Islamic firm. Due to this constraint, cost of financial distress for an Islamic firm would be minimal. The first condition is however, violated in case of the recent innovations based on *bai-al-einah* and *tawarruq*. Islamic banks have been providing unsecured loans through these two routes that are not asset-backed. The instructor may observe here that such products are "spurious" or at the least, "controversial" and would not be sought by a genuinely Islamic firm.

8.3.3. The pecking-order theory of financing choices

An alternative "pecking order" theory begins with the premise that managers know more about their companies than investors. Because of this asymmetric information, all else equal, companies will issue debt when they are confident about the future, and will issue equity when they are doubtful. Thus, the security issued serves as a signal of managers' confidence in their company's future. Thus, it implies that firms use internal finance when available, and choose debt over equity when external financing is required; a new issue of stock is the last resort. This theory is successful in explaining the inverse intra-industry relationship between profitability and financial leverage; it is less successful in explaining inter-industry differences in debt ratios.

What would be the pecking order for Islamic firms? If we assume that the objective of a firm is to minimize the total cost of financing, then the choice of instruments and the capital structure of a firm depend on the constraints it faces. If a certain low cost instrument is not available to a firm due to some constraint, it will move on to the next low cost instrument. Moving up the pecking order, the firm decides on the composition debt and equity to finance assets. Costs may be direct or indirect. Directs costs are those that a firm has to pay explicitly in pecuniary terms for arranging finance from the suppliers of funds. These costs would include the specific costs incurred to service debt or equity in the form of mark-ups in *murabaha*, internal rate of return in *ijara*, profit-shares in *mudaraba* and *musharaka* and dividends in equity. Direct costs would also

include issue/ floatation costs. Needless to say, such costs would be absent in case of internal equity. Indirect costs could take several forms. One, there would be distress costs with greater use of debt. Two, there would be information costs (price decline with new issue of equity) with use of external equity. Three, there would be dilution costs (in the form of dilution of rights of existing shareholders) with external equity. This cost may be observed to be more in case of *musharaka*-based equity than *mudaraba*-based equity, since the former provides for greater say in management to the financiers. Four, there would be agency costs with excess cash in the hands of managers. The possibility of excess cash would be less with debt as compared to equity as the former would involve a fixed periodic cash outflow.

Considering different sources, we now find:

a. Internal equity has direct costs higher than debt but lower than external equity. It does not have any dilution, distress, or information costs.

b. Debt has lower direct costs than internal equity, but has floatation costs like external equity. It does not have dilution costs and information costs but has distress costs.

c. External equity would involve high direct costs including floatation costs. Dilution cost is likely to be more in case of *musharaka*-backed instruments as compared to *mudaraba*-based instruments. There would be no distress costs. There would of course, be information costs with adverse reaction to new equity issues.

Given the above, we are now in a position to comment on the pecking order for an Islamic firm. If we assume that firms would seek to minimize total costs, then, they would choose internal equity, debt, *mudaraba*-based equity and *musharaka*-based equity in that order.

9. Mergers and Acquisitions

Mergers, when friendly, are generally governed by sound economics. There are "synergies" to be gained by the process of merger and this is understood by most stakeholders. Synergies may relate to various functional areas – marketing, finance and the like. Traditionally this is referred to as 2 + 2 = 5, which means that the value of the combined firm is more that the sum of the values of individual firms. The difference is the value of synergy. Since the merger is beneficial to shareholders of both companies, ethical issues mostly relate to proper evaluation and distribution of synergies as reflected in the share-swap ratio. This ratio refers to the proportion in which shareholders of the merged company would be allotted shares of the post-merger or new company. Where pricing is based on a valuation exercise, scholars of *fiqh* recommend seeking the advice of valuation experts. A possible difference between the price at which a transaction is executed and the fair price (as per the opinion of valuation experts), is termed as *ghubn*. The presence of *ghubn* makes a transaction unethical. Some scholars even go to the extent of providing exact figures for *ghubn* to be termed excessive and prohibited. While marginal over-pricing may be permissible, gross over-pricing must be curbed. Textbooks demonstrate the use of techniques of valuation to estimate the value of individual firms, the combined firm and that of synergy. Numerical examples show how synergy is shared between shareholders of the two firms.

9.1. Ethics of Hostile Takeovers: Raider's Perspective

9.1.1. Hubris Theory of M&A

This theory asserts that the basis of acquiring other firms is nothing more than unbridled greed. Agent-Managers act with a view to bringing more and

more assets under their "control" even if this is value-destroying in the long-run; detrimental to the interests of Principal-Shareholders. Before we rush to label all "hostile takeovers" as unethical and against the spirit of *Shariah*, we may note that a large number of economic actions are based on greed and avarice that may not qualify as forbidden.

9.1.2. Value Destroying Actions

When the raider engages in actions, such as, financing the acquisition through sale of "junk bonds" and pays up the high rewards through asset sales subsequent to its successful raid, such actions could be value destroying. Such financing of course clearly involves *riba* and has no place in the Islamic framework.

When the raider moves away from its core competence and acquires a firm unrelated to its existing business, governed by the desire to control large "empires" and "conglomerates", such a strategy could be value destroying in the long run. Since intentions are largely unobserved, it would be difficult to label such actions as unIslamic.

9.1.3. Value Enhancing Actions

To understand this, we should answer this question. What are the "ideal" conditions for a takeover attempt? A company is a likely takeover target when it is grossly undervalued and there is a major discrepancy between the Price and Intrinsic Value of the company. Often the discrepancy is caused by managerial decisions that are not in the best interest of the shareholders and betrays the "shareholder wealth maximization" objective. In terms of valuation model this is likely to happen when the management is sitting on large cash reserves and has large cash flows but follows a conservative dividend policy (pays low or nil dividends) after taking into account its reinvestment requirements. Market price reflects the dividends and hence is low too; while value or worth is high. Since market price is low, it provides a cushion to raider to wrest control; since he would bid up the prices in trying to acquire controlling stake. Thus, due to actions of the raider, the discrepancy disappears and shareholders are rewarded with what is due to them. Alternatively, an incompetent or dishonest management is replaced.

This surely is ethical and desirable from the *Shariah* point of view. A management need not be afraid of losing control if it is efficient, honest and does not take its shareholders for a ride or take them for granted. A high market price is the best defense against a take over attempt.

9.1.4. Effects on Stakeholders

Apart from the shareholders, other stakeholders are – employees, customers, suppliers and the like. Often hostile takeovers bring with them adverse days for the employees of the target firm.

9.1.5. Possible Lack of Transparency

If the market is not well regulated, hostile takeovers are shrouded in secrecy, at least in the initial phase of mounting a raid. When small shareholders are largely unaware of such secret "cornering" of stocks they may be adversely affected and their entitlement to relevant information is violated.

9.1.6. Discrimination against Loyal Shareholders

Most corporate bids are straightforward. The raider purchases enough stock on the open market for a foothold and then makes a tender offer for enough shares to gain control or partial control of the firm. In the second stage, often a swap of cash or securities for shares not included in the tender offer takes place at a lower price – a two-tiered purchase, which may financially discriminate against the more loyal shareholders who did not accept the tender offer.

9.2. Ethics of Hostile Takeovers: Target's Perspective

What does the management of a target company do when faced with a raid? It can go for a defensive strategy or a "shark repellant" strategy. Or, it may launch a counter-attack on the raider.

9.2.1. Defensive Strategies

Generally speaking, those planning takeover defenses try to make their firm less attractive to raiders. They make their firm more difficult to acquire. They encourage stockholders to remain loyal to current management and ask them to authorize more management control; or they counter attack the raiding firm. When defenses fail, they seek a white knight – another firm in which they would prefer to merge if a merger is inevitable.

Stock manipulation strategies include both actions to dilute the percentage of ownership of the firm by hostile forces and actions to raise the price of common stock to make it more expensive to purchase the necessary

controlling percentages. Stock dilution steps include floating non-voting convertible stock/bonds to dilute common stock, stock splits, the issuance of new blocks of stock along with the elimination of preemptive rights, and greatly increasing the amount of authorized stock. There are tactics that could hurt current stockholders. Every shareholder has a right against possible detriment (*darar*). The granting of pre-emptive rights (*al-shufa*) to a co-habitant of a property by *Shariah* is a clear example that should help shape regulations to curb the above manipulative strategies. Further, such strategies may go against the ethics of principal-agent relationship. The management as the agent (*wakil*) of the shareholders must refrain from doing anything that is detrimental to its principal. If shareholders as principal cannot revoke the agency contract on this ground (as is likely in the present context) then the regulator must do the needful by bringing appropriate regulations in place that deter such strategies.

Debt manipulation strategy: Lightly leveraged firms with excessive borrowing capacity invite raiders. The solution to this problem is to acquire debt and reduce the firm's borrowing capacity. It may be possible to include restrictions on loans that would accelerate their pay-back in the event of a merger.

Golden parachutes and the granting of lucrative severance benefits to long-term employees in the event of an unsolicited merger/ takeover can increase the obligations of an acquiring firm. These tactics could severely penalize stockholders who may need to sell their shares in the near future. In the long run they might be justified if necessary to keep in a good management team or to ward off a liquidator.

Amending corporate by-laws: Possibly one of the greatest abuses of executive power is the changing of by-laws to deprive or delay the transfer of control to an acquiring raider. The aim of most of the defensive by-laws changes is to retain present management's clout in the firm past the time they legally have a controlling interest. The elimination of cumulative voting prevents a minority owner from having a say on the Board of Directors. Staggered terms for board of directors can prevent a new owner from placing his people on the board of directors for years. This is a clear abuse of the right of ownership. Other by-law changes include supermajority requirements, fair price amendments, the elimination of preemptive rights, the requirement that board of director vacancies be filled by remaining directors, an increased percentage of votes needed to call special meetings, and an increase in the percentage of votes needed to approve a merger.

Public relations strategy: Probably the best defensive action is anything that can encourage investors to reevaluate the stock upward, making it

prohibitively expensive for a render offer or a proxy fight. Management needs to present all its case to its stockholders.

9.2.2. Counter-attack Strategies

"Minnows can swallow whales" if the whales fail to resist their attack. Today some larger firms are using the **Double PAC-MAN** defense when pursued by smaller firms. In the Double PAC-MAN defense, the pursued firm turns on the pursuing firm, putting it on the defensive.

The **scorched earth policy** is a form of counterattack. Under the scorched earth policy the defending firm retaliates by making itself a lesser prize. An "asset-strip" or selling of a firm's most valuable possessions — "selling the crown jewels" — can make a victim a lesser prize, but often this is done primarily to save managements' jobs and not to benefit the shareholder. Executives who employ these tactics show less concern for the shareholders than they do for their own jobs. Unless management is positive that an acquirer is a liquidator, scorched earth policies arc offensive.

Greenmail might be considered a rather passive form of counterattack to save a firm from takeover or from outsiders' involvement. Greenmail or "stand-still agreements" occurs when top managers use stockholders' money to persuade a potential acquirer to go away. A greenmail payoff without stockholder approval can be, under certain circumstances, a gross abuse of executive power. Even with stockholder approval, greenmail payoffs need to be closely examined to prevent favors/kickbacks to the corporate executives who led the proxy fight for approval to pay greenmail.

Most such strategies are inherently unethical and have no place in an Islamic framework. A valid response would perhaps be a **legal action** counterattack. This can be used to ward off predators. The victim can call the attack to the attention of anti-trust authorities, especially where both firms are in the same line of business. It would be a desirable counterstrategy especially from an Islamic point of view where the merger would result in an unlawful reduction of competition.

9.3. Frameworks for Ethical Analysis of M & A

In this section we examine two ethical frameworks suggested in mainstream literature on Mergers and Acquisitions, and then propose the Islamic framework.

9.3.1. The Market Ethic Framework

Under the market ethic framework, market reaction to the takeover is viewed to be indicative of the value that the merger provides to society. In other words, if the shareholders of the affected firms realize gains, it implies that the value of the resulting combined company is greater to society than were the initial firms in their separate states. This framework has been used by proponents of M&A who cite empirical evidence in favor of the view that well-planned takeovers benefit the stockholders of the acquiring firm. According to them the target firm shareholders also experience abnormal positive gains in market price, and the effects on the market price appear to be permanent.

The market ethic framework is operationally quite simple as the market reaction is easily observable. However, it has some serious drawbacks too. The framework completely ignores the ‘human side' of the transaction, such as, the effect on workers and their families of job-cuts in the post-merger restructuring. It also fails to take into account full economic effects of the transaction on the community served by the merged company. Another major drawback relates to the assumed rationality of the stock market and whether market reactions are a good indicator of value of a company.

9.3.2. Utilitarianism

This is another framework for evaluating M&A that is based on the principle "the greatest good for the greatest number". From this perspective, the ethicality of M&A is based not only on the effect which the activity will have on the stock prices of the respective firms but instead, the ethicality is dependent on the effects which the merger will have on all involved stakeholders including direct claimants such as shareholders, customers, suppliers, and employees, and indirect claimants such as competitors, local communities, the general public, and affected governments. Proponents argue that implicit contracts exist between business firms and stakeholders. They contend that firms have at least a *prima facie* obligation to fulfill these obligations, as well as a general duty not to do harm. The morality of specific activities within a utilitarianism framework is determined through an analysis of the resulting costs and benefits to each of these affected groups.

An example that is often cited to highlight the deficiencies of this framework is as follows. Substantial benefits might be obtained by large numbers of citizens in a country if the resources of the fifty wealthiest individuals in the country were seized and redistributed, even if the wealthy individuals had to be eliminated to facilitate the process. Such an action could possibly easily pass the utilitarianism test of the ‘greatest good for the greatest

number', but would clearly be unjust. This anomaly completely disappears in the Islamic framework. Rights granted by *Shariah*, such as, property rights prevail upon any such consideration as 'greatest good for the greatest number'.

9.3.3. A Suggested Islamic Framework

As stated in the beginning, there is nothing inherently objectionable about "exit" of some parties from the management or from the company, or merger of one company into another, provided this is achieved with the consent of all concerned parties or stakeholders. However, as we discussed above, a take-over attempt raises several issues that need to be addressed by the Islamic regulator. Even friendly takeovers involve a possibility of *ghubn* due to mispricing of the firms. A hostile take-over may indeed be beneficial for the target firm and its shareholders. Serious problems may arise however, when existing management of the target company resists the attempt and engages in a range of strategies that clearly violate the rights of the shareholders. At the same time, the shareholders themselves may not be in a position of looking after their own interests. The role of the Islamic regulator therefore assumes great significance and it must curb any such possibility through appropriate regulations. Regulations in the Islamic economy would clearly incorporate mandates of *Shariah*, such as fulfillment of contractual obligations and other "known" norms, such as, prohibition of *riba*-based financing of the process.

As we have discussed above there are some issues that fall in the "unrestricted" domain of *Shariah*. These could be sorted out using the benefit-cost comparison under *Maslahah Mursalah* (MM) framework. This framework would be broader than a simple utilitarian quantification and comparison of beneficiaries and benefits. For example, a mere quantitative comparison of beneficiaries under the utilitarian framework would mean that since the number of customers is higher than the number of shareholders or of employees, the benefit or cost to them as a result of takeover would outweigh other considerations. The MM framework recognizes the fact that benefits are perhaps more qualitative than quantitative; it seeks to incorporate all resulting social externalities; allows for relative weights to "good" and "bad" effects on various stakeholders. It also takes note of the type of "good" or "evil". For instance, something necessary to keep a business in existence (a necessary good), may take precedence over a normal dividend (a useful good). Among others, it may consider the effect of time on the degree of good and evil, probabilities associated with the good and evil outcomes, the degree of direct causality, identification and evaluation of other alternatives available to the situation under analysis. MM therefore, is a much broader framework than utilitarianism and forces a much deeper analysis.