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**Corporate Finance in an Interest Free Economy: An Alternate
Approach to Practiced Islamic Corporate Finance**

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Table of Contents

Abstract	3
1. Introduction	3
1.1 Background of the Study.....	3
1.2 Problem Statement.....	4
1.3 Objectives of the Study.....	4
1.4 Importance of the Study	4
1.5 Research Methodology.....	4
1.6 Scope of the Study.....	4
1.7 Limits of the Study	5
2. Literature Review	5
3. Application of Time Value of Money	8
4. Dealing with Scarcity of Capital	8
5. Pricing Capital in an Interest Free Economy	9
5.1 Pricing of Capital in Public Finance	9
5.2 Pricing of Capital in Corporate Finance	10
6. Financing Alternatives in the Proposed Framework	11
6.1 Limited Liability Partnership	11
6.2 Ijarah with Options Contract	11
6.3 Mudarabah	12
6.3.1 Mudarabah Corporate.....	12
6.3.2 Mudarabah Consumer	13
6.4 Leasing.....	13
6.5 Short Term Credit.....	13
6.6 Trade Finance	13
7. Insurance Alternatives in the Proposed Framework	14
8. Investment Alternatives in the Proposed Framework	14
8.1 Islamic Income Funds	14
8.2 Islamic REITs	14
8.3 Investments in NGDP linked Treasury Bonds	14
8.4 Investments in Foreign Currency	15
8.5 Investments in Stocks.....	15
8.6 Investments in Venture Capital Funds	15
8.7 Investments in Corporate Income Bonds.....	15
8.8 Strategic Investments	15
9. Making Equity Markets Efficient	15
Conclusion	16
References	17

Corporate Finance in an Interest Free Economy: An Alternate Approach to Practiced Islamic Corporate Finance

Abstract

This paper suggests an alternate approach to corporate finance in an interest free economy by looking beyond practiced Islamic finance and suggesting alternatives for corporate finance in sourcing funds i.e. i) Ijara with embedded options, ii) limited liability partnership, iii) equity modes like Musharakah and Mudarabah iv) income bonds and v) convertible income bonds. It also suggests alternatives for corporate finance in using funds i.e. i) Islamic income funds, ii) Islamic REITs, iii) Treasury Bonds, iv) income bonds v) convertible income bonds, vi) foreign currency reserves, vii) making strategic expansion, and viii) equity investments in other companies. It also suggests methods of valuation by suggesting an alternate means of pricing capital in interest free economy and use of appropriate discount rate i.e. Nominal GDP growth rate in public finance and corporate finance in CAPM, dividend discount model, project valuation, calculating NPV, valuing income bonds and stocks. It also discusses how the problems of scarcity of capital will be solved and alternatives for insurance in an interest free economy.

Keywords: *Islamic corporate finance, pricing of capital, Islamic public finance, scarcity of capital, Interest free economy, Interest free finance, Zakat, Usury, Time value of money, CAPM, Project evaluation, NPV, FCF.*

1. Introduction

1.1 Background of the Study

The most distinguishing feature of the Islamic economic system is the prohibition of interest. Usury, Interest and Riba are synonymous terms but they have different technical meanings. Usury refers to the consumption loans given on higher rates and thus causing exploitation of the borrower. Interest refers to the cost of using money in finance and economic theory.

Interest is prohibited in all monotheist religions (See Exodus 22:25, Leviticus 25:35-36, Deuteronomy 23:20, Psalms 15:5, Proverbs 28:8, Nehemiah 5:7 and Ezakhiel 18:8,13,17 & 22:12).

Islamic economic principles have prominently been applied in financial industry especially in banking. In Egypt, first Islamic savings bank was established based on the principle of profit-sharing at Mit Ghamr in 1963. The Islamic financial system in Malaysia was introduced in 1963. Bank Islam Malaysia Berhad (BIMB) commenced business on 1 July 1983.

In 1975, the Islamic Development Bank was established to provide financing to projects in the member countries. Dubai Islamic Bank was the first modern Islamic commercial bank founded in 1975. Indonesia's first Islamic bank was Bank Muamalat, which was established in 1991. In Bahrain, first Islamic commercial bank was established in 1978.

In Pakistan, Meezan Bank was the first Islamic commercial bank established in 2002. The branch network of 6 full-fledged Islamic banks and 12 conventional banks (with dedicated Islamic banking branches) increased to 528 branches by June 2009. It is estimated that Islamic banking will achieve a market share of 12% by 2012 in Pakistan. (Source: SBP Strategic Plan for Islamic Banking 2009).

Total assets of Islamic banking in Pakistan reached Rs. 313 billion by June 2009. The financing and investment portfolio of Islamic banks reached Rs. 195.0 billion by June 2009. In terms of market share, total assets, financing & investment and deposits reached 5.1 percent and 4.2 percent and 5.2 percent, respectively, at end June 2009. The deposit base of Islamic banks reached Rs. 238 billion at end-June 2009. (Source: Business Recorder, September 09, 2009). Lately, the Vatican said banks should look at the rules of Islamic finance to restore confidence amongst their clients at a time of global economic crisis. (Source: Osservatore, March 04, 2009).

However, Islamic finance has been criticized by some circles in using conventional benchmark in pricing products, using more or less the same product structure and predominantly using debt based modes of financing. This paper takes an alternative approach and goes beyond practiced Islamic finance to suggest an alternative financial framework.

1.2 Problem Statement

Interest is prohibited in all monotheist religions. However, interest is pervasive in capitalism, an economic system based on secular ideals. Much of criticism on interest, capitalism and its ideals has been made without reference to developments in contemporary systems and institutions. In proposing alternative to Capitalism, an idealistic approach is adopted. On one hand, this study analyzes capitalism especially its financial system, regimes and institutions and on the other hand, this study suggests policy changes in the financial system in the light of Islamic principles that can serve as an alternative need-fulfillment mechanism.

1.3 Objectives of the Study

The study sets forth following important objectives:

- To discuss how scarcity of capital can be tackled effectively in an interest free economy.
- To suggest alternatives of using funds in an interest free economy i.e. investment alternatives.
- To suggest alternatives of sourcing funds i.e. interest free financing alternatives.
- To propose alternatives of commercial insurance in an interest free economy.
- To recommend an interest free alternative of pricing capital in public and corporate finance

1.4 Importance of the Study

The study has academic significance as well as in policy making. Capitalism and its contemporary regimes, systems and institutions are not incorporated in the critical analysis of interest based financial system. This study takes into account contemporary developments in academic research as well as practice to suggest an alternative financial framework.

1.5 Research Methodology

This study is qualitative but analytical. It is not merely an abstract explanation and discussion of monetary history of regimes and institutions. In suggesting alternative monetary framework, support for the policy changes is provided from the macroeconomics theory, economic models and evidence from specific cases of different economies.

1.6 Scope of the Study

The study sets forth a determined objective to contribute in policy making as well as add to the academic literature of Islamic Economics. The study encompasses major disciplines of economics

and finance such as macroeconomics, financial economics, international economics, corporate finance, project evaluation and financial valuation.

1.7 Limits of the Study

The policy recommendations are based on Islamic principles which are taken as constraints i.e. a given constrained framework. But, these principles are not at work in practice and the quantitative data comes from within the system not inclusive of these principles. Therefore, empirical support can at best support the case of inadequacy present in current system. However, unless the constrained framework is put into practice, the quantitative data can not be taken as representative and result of the proposed constrained framework.

2. Literature Review

Riba technically means “Any excess benefit derived on a loan over and above the principal”. Therefore, definition of Riba encompasses interest and usury taken on consumption or commercial loans as well. However, there have been debates on whether the present day competitively set interest rate within a competitive financial industry comes under the interest that was prohibited 14 centuries ago. But, this issue has been settled now that interest in all its forms and manifestations must not be allowed (Usmani, 2007).

Even among secular literature, one finds criticism on interest. Aristotle (384-322 BC) in his book “Politics” criticized interest in following words “Of all modes of getting wealth, this is the most unnatural”. In value neutral economics too, we find criticism on interest. Keynes (1936, p. 377) in his monumental work “General Theory of Income, Employment, Interest and Money” reasoned in following words:

“Interest to-day rewards no genuine sacrifice, any more than does the rent of land. The owner of capital can obtain interest because capital is scarce, just as the owner of land can obtain rent because land is scarce. But whilst there may be intrinsic reasons for the scarcity of land, there are no intrinsic reasons for the scarcity of capital. An intrinsic reason for such scarcity, in the sense of a genuine sacrifice which could only be called forth by the offer of a reward in the shape of interest, would not exist, in the long run, except in the event of the individual propensity to consume proving to be of such a character that net saving in conditions of full employment comes to an end before capital has become sufficiently abundant. But even so, it will still be possible for communal saving through the agency of the State to be maintained at a level which will allow the growth of capital up to the point where it ceases to be scarce”.

Sameulson (1948) in his criticism on extra reliance on market forces stated that market forces will only lead to ‘starving couples’ to malnourished children who grow up to produce malnourished children, to perpetuation of Lorenz curves of great inequality of income and wealth for generations or forever.

Krugman [September 02, 2009] in his New York Times article titled “How Did Economists Get It So Wrong?” analyzed the current financial crisis in following words:

“Until the Great Depression, most economists clung to a vision of capitalism as a perfect or nearly perfect system. That vision wasn’t sustainable in the face of mass unemployment, but as memories of the Depression faded, economists fell back in love with the old, idealized vision of an economy in which rational individuals interact in

perfect markets, this time gussied up with fancy equations... Unfortunately, this romanticized and sanitized vision of the economy led most economists to ignore all the things that can go wrong. They turned a blind eye to the limitations of human rationality that often lead to bubbles and busts; to the problems of institutions that run amok; to the imperfections of markets — especially financial markets — that can cause the economy's operating system to undergo sudden, unpredictable crashes; and to the dangers created when regulators don't believe in regulation.

... So here's what I think economists have to do. First, they have to face up to the inconvenient reality that financial markets fall far short of perfection, that they are subject to extraordinary delusions and the madness of crowds.”

Among Muslim economists, Chapra (1993) viewed secular societies continuing to belittle the need for moral development; though all of them now profess commitment to development with justice. He emphasized that even material development with justice is not possible without moral development. The rationale for this contention is that development with justice requires an 'efficient' and equitable use of all resources and both 'efficiency' and 'equity' can neither be defined nor actualized without the injection of a moral dimension into economic pursuits.

He outlined unrealistic assumptions in capitalism which will not make invisible hand alone to address the issues of equity:

1. Harmony between individual and social interest e.g. unscrupulous consumption and imposing externalities on society.
2. Individual preferences reflect social priorities e.g. precedence of self interest over social priorities).
3. Equal distribution i.e. unequal distribution of income gives more weight to resourceful class to influence allocation of resources to their desired use.
4. Prices reflect urgency of wants i.e. no mechanism to differentiate between necessities and not so necessities, e.g. want satisfaction of few does not mean need satisfaction of all especially when resources are scarce and can only be used for alternative uses.
5. Perfect Market i.e. price mechanism can have a minimum impact on socially desirable allocation of resources; it works when there is perfect competition. But, market imperfections even dilute this little influence that price mechanism could have on socially desirable resource allocation when prices are completely out of line of real costs.
6. Social Darwinism i.e. richest are the fittest to survive by the sheer weight of their purchasing power to influence the resource allocation.

Nevertheless, much of criticism on interest, capitalism and its ideals has been made without reference to developments in contemporary systems and institutions. In proposing alternative to Capitalism, an idealistic approach is adopted.

Pal (2006) thus criticized the traditional approach of comparing Islamic ideals with practiced capitalism. He stated that systems can not be analyzed judicially with taking ideals of one and the practice of the other.

However, Muslim economists have given some alternative approaches for the development of an interest free financial system besides the criticism on interest.

Khan (2004) argued against elimination of interest by a legal decree and favored free market forces to bring the interest rates down to zero. He also emphasized on providing incentives for the use of equity over debt financing. He proposed following policy measures:

- I. Reducing reserve requirements to increase supply of lent funds.
- II. Strengthening the system of social security and income maintenance to safeguard the interest of lenders whose major source of income is interest i.e. pensioners, widows, retirees, disabled, old etc.
- III. Enforcing unlimited liability.
- IV. Gradual decline in interest to make investments in debt based instruments less lucrative and shift loanable funds towards equity based instruments.
- V. Allowing dividend as a tax deductible expense.
- VI. Providing fiscal incentives to non-leverage firms and disincentives to leverage firms.

These recommendations worth serious consideration, but, reducing reserve requirement could bring inflation especially if only market forces are given a mandate for elimination of interest without a legal decree. Furthermore, limited liability is only available in partnerships which are not as common and popular forms of business organization and in corporations. Limited liability in corporation serves the interest of shareholders which among others are individuals from general public. Limited liability solves the agency problem by acting as a check on managers to be prudent in their strategic decisions especially related to capital structure and it also makes creditors lend prudently. It makes equity investments more secure by limiting risk and hence create a secondary market for equity instruments.

Smolarski et al. (2006) analyzed options from Islamic point of view and argued that Options may be permitted for hedging purposes in Islamic finance as long as the underlying economic activities are themselves permissible from an Islamic point of view.

Mehmood (1990) introduced the TMCL model which is based on the basic idea that in a loan arrangement, both the amount of loan and time to maturity are equally important. Thus, if the amount of any loan is multiplied by the period for which it is extended, the result would be a unit i.e. loan value (LV). Thus an amount of Rs. 1000 for 1 year, has the same loan value as Rs.125 for 8 years i.e. both sum upto the same loan value of Rs.1,000. Therefore, any combination of giving bilateral loans whereby the loan value remains same is in conformity with Islamic principles as it will fall in the realm of Qard-e-Hasan. Therefore, if a borrower needs a loan of Rs.1,000 for 1 year, he can give away a loan of Rs.125 for 8 years and get a loan of Rs.1,000 for 1 year.

Zaheer (1996) criticized TMCL concept arguing that TMCL is based on the premise that money ought to have time value, the Islamic prohibition of Riba requires that money should not be allowed to have any time value at all. Consequently, the TMCL proposal is contributing to resurrect exactly the same evil which Quran wants to see condemned to extinction.

Siddiqui (2005) highlighted that as per Islam, what is unacceptable is trading money paid now for money paid in future with an increment. A direct deal between producers and consumers/users of goods or assets rarely takes place... There are intermediaries between producers and users/consumers. Traders in fact never intend to use the goods they buy. Their purpose is making a profit by selling what they purchased, often to its user/consumer.

In some cases this intermediary is a financial intermediary. An Islamic financial intermediary enters into Islamic contracts to make profits by providing finance to those who need it. It does not lend money but pay for the needed goods or assets to its supplier and handing over the asset or good to the user/consumer.

Toutouchian (2006) also differentiated between money and capital and reasoned that if capital is combined with labor, it produces profit, but if money alone is lent, the interest it earns is not permissible.

M : { (1) $L=100\%$; (2) $V>1$; (3) $MC=0$; (4) $d=0$; (5) $\acute{o}=0$; (6) $R=r$ }

K : { (1) $L<100\%$; (2) $V=1$; (3) $MC>0$; (4) $d>0$; (5) $\acute{o}>0$; (6) $R=\tilde{n}$ }

Where: L = liquidity; V = velocity; MC = marginal cost; d = depreciation
 R = return; \acute{o} = risk; r = rate of interest; and \tilde{n} = rate of profit

In proposing the appropriate method of pricing capital, Mannan (1982) proposed the use of accounting price of capital which will neither add to the cost of production nor form part of the profits; but, instead will be used to appraise projects.

3. Application of Time Value of Money

Time value of money is the basis of interest. Interest is said to be the charge on the use of money for a particular time period. Islam prohibits interest that entails that no incremental amount can be charged for the use of money for a particular time period.

According to Islamic principles, any investment will have to go through the entire process of a business activity that involves risk taking at each stage and any compensation on investment will be strictly dependent upon the outcome of the business activity. Time value of money is the problem for the investor to avoid keeping his money idle and to avoid forgoing the use of money that may bring positive value to his investment. However, it does not mean that the investor can demand an arbitrary increase (or is given as the case may be) as the cost of using money without taking the risk.

4. Dealing with Scarcity of Capital

Business cycles are a reality. Infact, as per Islam, they must exist as this world is a place for test and this test requires some people to be privileged and some to be deprived. The deprived and privileged are both tested for patience and thankfulness to Allah and how they take care of society and its needs. But, interest as a system of allocation of resources ensures a stipulated return to one and variable/uncertain for another. That is why, business cycles affect borrowers negatively. Hence, leveraged companies thrive in upturns, but lose in downturns.

Interest makes capital scarce, brings oligopoly in capital goods industries and monopolistic competition in consumer goods industries i.e. market imperfections. Market imperfections lead to mismatch between supply and demand, hence create downturns every now and then in economy. This downturn leads to monetary easing to increase Aggregate Demand, but the market remains imperfect even then because capital is still scarce with interest and no wealth tax (more prominently in developing countries with indirect taxes greater than direct taxes). If it is followed by cost-push inflation, it may give rise to stagflation. In Stagflation, monetary economics fail and further exacerbate the situation with output decreasing and capital made scarcer with increase in interest rates. Inflation can be better checked through supply chain management and removing market imperfections complimented by progressive taxation. Business Cycles will continue to exist as they are natural, but the loss/profit would be shared. So, markets will not produce speculative surplus output and that will stabilize business cycles.

Interest will be abolished by a legal decree complimented by an imposition of broad based wealth tax (Zakah). An imposition of wealth tax (Zakah) would ensure that loanable funds increase even when there is no interest. The loanable funds would be invested in equity modes of financing including Mudarabah and Musharakah. Investments in equity will be exempted from wealth tax. This would ensure that investors get a minimum return i.e. tax savings plus income on their equity investments. This tax exemption would also ensure the availability and supply of loanable funds.

By abolishing interest by a legal decree, primary market activities in equity markets will increase since companies will no longer be able to generate finance through debt. Therefore, increase in listed companies will expand the market and diversify trading opportunities for investors.

Modigliani & Miller (1963) argued that value of a levered firm is greater than the value of an unlevered firm. The difference in value comes from the tax benefit accruing to a levered firm. But, they ignored the bankruptcy costs and the case where even if a company is solvent, the economy may go through a recession. Further, if this tax benefit is provided to an unlevered firm by making dividends tax deductible; then, value of a levered firm may cease to have any extra value greater than an unlevered firm.

5. Pricing Capital in an Interest Free Economy

5.1 Pricing of Capital in Public Finance

In the figure below, data for the period 1970-2008 for a group of big economies i.e. America, Britain, Canada, China, the euro area, India and Japan is shown on the variables Nominal Interest Rates (t) and Nominal GDP Growth Rate (t-1) since Nominal GDP responds to interest rate changes as it decreases aggregate demand for the subsequent period, a lag variable for GDP i.e. GDP (t-1) is taken.



Figure 1: Nominal GDP (t-1) & Nominal Interest Rates (t) for a group of big economies (Source: The Economist)

It can be seen that both variables virtually moved together throughout the period and especially since 1990. Since this figure confirms the movement of both variables in the same directions, it can be used for indexing loans from the rest of the world and initially by Islamic Development Bank for its financing assets.

IMF provides lending to member countries for dealing with balance of payments crisis and maintain stability in the economy in the form of Stand-By Arrangements (SBA), Flexible Credit Line (FCL), Emergency Assistance (EA), Exogenous Shocks Facility (ESF) and Poverty Reduction and Growth Facility (PRGF) etc. If these loans are pegged with IMF's reserve currency i.e. SDR which is composed of a basket of currencies namely USD, JPY, GBP and Euro or pegged with USD or with any other hard currency, the financing facility so provided can be benchmarked using nominal GDP growth rate of the lender's country of origin or benchmarked with weighted Nominal GDP growth rate in major donor countries.

Financing in development projects from World Bank and International Development Association (IDA) can also be benchmarked with weighted Nominal GDP growth rate in major donor countries or countries whose currency is included in the basket of currencies which make up SDR. This will be an alternative for market based financing. For soft loans, aid and grants, the Nominal GDP growth rate in the recipient country can be used. It will not only compensate the financier for parting with liquidity and capital, but also provide a stable mechanism for recipient countries to get out of debt trap with debt servicing linked with output performance benchmark. Having this relief in the balance of payment and foreign debt, countries will be well set to introduce the proposed benchmark for pricing treasury bonds. Financing from domestic commercial banks can be benchmarked with the national nominal GDP growth rate.

5.2 Pricing of Capital in Corporate Finance

In corporate finance, NGDP growth rate will be used in following valuation models:

1. It will replace R_F in CAPM model.
2. It will help in calculating K_s and Capitalization rate in dividend discount model.
3. Income Bonds will be valued using DCF approach. The proposed benchmark rate i.e. NGDP growth rate would be used as the discount rate.
4. FCF could be calculated using this benchmark rate.

5. In project valuation, this benchmark rate would be used to find PV of Cash Flows. This would be appropriate due to following:
- i. It will not lead us into falling in time value of money as we are using an enterprise or output related benchmark rather than interest based benchmark
 - ii. The Cash Flows are obtained using equity contractual modes like Mudarabah and Musharakah.
 - iii. We are calculating valuation models for the investor and not for the borrower. Borrower or financee will be in no obligation to provide the returns based on these valuations. But, the investor can use this “indicative valuation” to rank investment alternatives.
 - iv. In actual distribution of income between financier and financee, profit sharing ratio would be used and applied to the gross profit earned by the financee.

6. Financing Alternatives in the Proposed Framework

In the following lines, holistic set of changes are recommended as part of the proposed financial framework.

6.1 Limited Liability Partnership

In this form of business, the liability of the partners is limited up to their investment in the firm as in the case of a limited company. Limited liability partnership does not contradict in any way with Islamic principles and hence will feature in proposed financial framework. In one Hadith, Allah has declared that “He will become a partner in a business between two partners until they indulge in cheating or breach of trust.”

Venture Capital Funds in developed markets are established on limited liability partnership structure. Similarly, professionals also establish limited liability partnership. In VC funds, income bonds can be issued first before the company becomes profitable and then the stocks in the company can be acquired.

6.2 Ijarah with Options Contract

The concept of Gharar (uncertainty) should not be used as shield to avoid price/market risk. 1400 years ago, the economy was agricultural and the agricultural yield was not predictable and homogenous. In Options contract, the obligation rests on one party and the other has an option. Therefore, it does not have any element of Gharar (uncertainty). Call premium is also charged to create financial discipline. If there is no call premium, then one will buy an unlimited number of options contract to hedge for each date for a same or similar price. Hence, options could be used in fixed asset/property financing to separate sale and tenancy contracts.

In the practiced Islamic banking, taking an undertaking from the financee is just like buying a put option from the financee who is acting as a put option writer. If this is reversed, the financee would buy the call option and the bank will sell the call option i.e. acts as call option writer.

The alternative is as follows:

The bank buys the asset/property paying the asset owner the full amount of the asset. The Bank is now the owner of the asset. It gives the asset/property on rent to the financee and at the same time, the bank enters into an option contract as the call option writer. In a European option contract (exercisable only at expiration date), the financee buys that call option which gives him the right to buy the asset at call expiration. He has the right but not the obligation to buy. The

option writer however, is obliged to sell the asset if the call buyer decides to exercise the contract. For short term options contracts as in corporate financing, American style call options contracts (exercisable on or before expiration date) can also be used.

If the call buyer does not exercise, the option contract expires and the bank is in a position to give the asset/property on rent again. If the call buyer exercises the contract, the bank gets the asset price plus the rental income for the period before the expiration of the contract.

The rent would be benchmarked using House Rent Index. This index could be established. The issue arises whether a fixed premium could be added or not. A fixed premium would ensure that even if the property for any reason reaches a value equal or close to zero, there is some rent charged greater than or equal to the fixed premium. However, since the contract itself does not have any connection with interest or interest rate benchmark and the rent is charged as long as the asset is in usable condition, it does not contradict with any of the Islamic principles. Here, one may point a contradictions that indexation on monetary loans is discouraged by Muslim scholars.

Responding to this argument, it must be emphasized that this contract is basically a tenancy contract and not a loan contract. Here, indexation is used, but it is a tenancy contract and not merely an extension of money loan. Indexation only in money loan is to be avoided.

In tenancy, rent accrues as long as contract remains in force and the asset remains in useful existence. In entrepreneurial ventures, profit accrues neither with time nor with any other factor. It results independent of time and its magnitude, positive or negative is not a function of a particular event or time. That is why; it must only be benchmarked with an index measuring profit alone in the underlying sectors/instruments without adding any fixed spread.

6.3 Mudarabah

A partner can opt for partnering only in profits. This arrangement of partnering only in profits is very different from interest based lending. An investor investing to earn interest gets the fixed amount irrespective of profit or loss of the borrowing entity. When a partner in a Mudarabah contract opts for partnering only in profits, he will only get a profit if the financee gets a profit. Therefore, this does not result in any exploitation of the financee and does not contradict with any of the Islamic laws. The modified Mudarabah will have the following characteristics. There will be two types of Mudarabah i.e. Mudarabah Corporate and Mudarabah Consumer.

6.3.1 Mudarabah Corporate

In practiced Islamic finance, the bank usually acts as a Mudarib. But, in the proposed framework, the Bank will act as a Rabb-ul-maal (investor) and will provide finance to business entities and corporations. This way, the fund will be utilized in productive uses rather than in the financial instruments.

In this contract, the bank acting as Rabb-ul-maal can opt to share only in the profits. This way the bank will be minimizing the risks and will get the principal paid back in full if the business incurs a loss. The validity of this arrangement has been discussed earlier. The Mudarib (Business enterprise) will not be willing to show losses because it will deteriorate its credit ratings and make it difficult for it to obtain finance through Mudarabah corporate in future.

6.3.2 Mudarabah Consumer

In this contract, the bank will act as a Mudarib (Fund Manager). The investors acting as Rabb-ul-maal will provide investment which is put together in a fund. The bank (Fund manager) will invest the funds in the equity market, Mudarabah Corporate, Ijarah and permissible derivatives like Options on Ijarah (as discussed above) and Sukuks based on Asset Backed Securitization etc. The fund can declare the dividends either stock or cash as the case may be. The fund can be a closed end fund or an open-end fund.

The calculation of profits for each investor will also be simple as it will be based on the capital gains on investment as a difference between redemption and purchase prices calculated each day on the basis of NAV. Therefore, the bank will also avoid the complex profit calculation based on profit on daily product basis as in the current system.

6.4 Leasing

Operating lease is in accordance with Islamic principles since no interest is involved in operating lease. Lessee bears the executory costs relating to the use of assets and Lessor bears the executory costs relating to the ownership of the assets. The rent should be market based and mutually agreed upon. The term of lease can be made equal to the useful life of the asset if both lessee and Lessor agree. Another alternative is to use Ijarah with options contract as proposed earlier.

The bank can also give the capital without owning asset, no need for asset at all. Asset is needed if one wants rent or profit out of an asset. But in the proposed model, the bank will participate in business and not with the mentality that it wants rent on asset or profit on sale of asset irrespective of what the business does as in practiced Islamic Banking. Instead of relying on rent on assets, banks can participate in business and earn profits distributed at gross profit level.

6.5 Short Term Credit

In the proposed model, the bank will provide capital and invest in the business (no asset involved) of the financee and share profits at the gross profit level. No business should exist if it is operating below shutdown point. If almost all blue chip companies have positive net income, and surely, all will have positive gross income, they can be profitable and so can bank if it participates in their business. It can participate with blue chip companies as equity partner and with growth companies as creditor by issuing Income bonds i.e. participating in profit only and that too at gross profit level.

6.6 Trade Finance

In trade finance, the credit involved is usually for the short term. Bank as a financial intermediary can altogether be avoided by incorporating time for payment in the price. If the buyer would pay after 6 months and not at spot, price agreed upon can be set high. This would not contradict with Islamic principles as the sale of asset is involved, delivery is made spot and only payment is deferred. Price once agreed will not change. Bank would get agency fee for services, but not interest on the short term credit as no credit gets involved with the bank.

7. Insurance Alternatives in the Proposed Framework

Insurance serves a very important social need (general and life insurance) and commercial need (commercial insurance). In conventional insurance, interest, gambling and Gharar makes it unacceptable under Islamic principles. The alternative is recommended as follows:

Mutual insurance is permitted. Therefore, general insurance and life insurance needs for living persons can be catered with Mutual Insurance. Insurance companies invest in mutual funds, equity markets, bonds, real estate etc to increase the value of their funds collected by way of premiums. People can insure themselves on their own by investing in mutual funds and pension funds. The insurance needs of salaried individuals can easily be catered by the employers themselves by establishing the mutual insurance system on their own.

But, the real problem arises in commercial insurance. Here, it needs to be kept in mind that not all risks are insurable. In fact, the risks generally insured by the commercial enterprises i.e. accidents, fire, destruction etc are remote risks than the risks which are uninsurable i.e. loss of customer's confidence, increased competition, regulation, taxes and decreased sales etc.

Governments if they have the fiscal space as they will have in the proposed framework, they can bail out any commercial enterprise suffering from any real and genuine mishaps. 'Gharimeen' is a head of Zakah. The Zakah funds allocated for distribution in this head can be used to pay the debts and accidental losses of the commercial enterprises. Furthermore, the contractual relationships will predominantly be of equity nature than debt nature and hence losses will be mutually borne than creditors getting fixed stipulated interest at the cost of shareholders suffering.

8. Investment Alternatives in the Proposed Framework

In the following lines, holistic set of changes are recommended in the proposed framework.

8.1 Islamic Income Funds

Islamic Income Fund will derive its income from investment in Ijarah (with Options), Musharakah (limited liability partnership) and Mudarabah. Islamic Banks provide income to their depositors on the same principle. Islamic Income Fund will be more diversified as it will be able to invest more funds in Islamic Banks with low NPLs and better risk management procedures. It will invest some funds in equity markets to provide better returns than Islamic Banks.

8.2 Islamic REITs

Real Estate Investment Trust (REIT) will invest in property market and gain through purchase/sale of properties and rental income. REITs investing funds in properties and giving them on rent will get regular rental income and hence will be able to provide their unit holders' regular source of income.

8.3 Investments in NGDP linked Treasury Bonds

Corporate finance managers and treasuries of financial and non-financial institutions can invest in treasury bonds which are priced using Nominal GDP growth rate.

8.4 Investments in Foreign Currency

Corporate finance managers and treasuries of financial and non-financial institutions can trade in different currencies as both are considered different commodities. This would be used to hedge currency risk. However, forwards, futures, options, swaps in currencies can not be used.

8.5 Investments in Stocks

Corporate finance managers and treasuries of financial and non-financial institutions can make equity investments in common stock of different companies diversifying risk and stabilizing portfolio returns.

8.6 Investments in Venture Capital Funds

Corporate finance managers and treasuries of financial and non-financial institutions can make equity investments in VC funds or providing seed/bridge financing as an angel investor if FCFE permits to diversify risk and income stream.

8.7 Investments in Corporate Income Bonds

Income only bonds could be issued. These bonds need to be serviced provided there is income. The service payments on these bonds will be tax deductible. Tax deductible feature would benefit issuer and the compulsory servicing of bond in case of income would benefit investors to invest in blue chip companies. Companies which are not in the ranks of blue chip companies would issue convertible income bonds. Since there is a one sided obligation, it will not be against any of the Islamic principles. Exemption of investment in income bonds would also ensure the availability and supply of loanable funds in income bonds market.

Dividends will be allowed to be tax deductible; thereby, benefiting the company to benefit from tax advantage and increase the frequency of dividend payments and make it a regular feature. This will further boost and compliment the availability of loanable funds.

8.8 Strategic Investments

Corporate finance managers and treasuries of financial and non-financial institutions can increase capacity to bring economies of scale and scope, increase market share by increasing size of firm, diversity product line and target market, become a conglomerate, acquire a strategic target and tap other long term opportunities if there is surplus FCF.

9. Making Equity Markets Efficient

The proposed alternatives require equity markets to be efficient. Equity markets are complex and intertwined with other markets in a financial framework. In this short paper, only a brief outline of reforms is presented before the readers.

Information processing must be transparent. The role of CDC, Stock Exchange and SECP is to ensure that there is no insider trading, market manipulation and that rules, regulations and procedures are designed with an objective to protect investors, ensure their participation and increase their confidence. Strict check on broker's activities and cancellation of membership if any broker is convicted of a manipulation or fraud.

Stock trading in futures markets should be abandoned. Secondary market trading does not influence the financial health of businesses directly and futures market of stocks is not a need of the listed companies nor is it of any use to investors in stocks. Moreover, repeatedly it has been proved stock market crashes were caused by speculation in futures trading. Daily monitoring and settlement of margin calls encourages short-term focus.

With closure of interest based Savings, Fixed/Term deposit accounts, more money will come in stock market either directly or through mutual funds. New memberships can be given to encourage competition, sound market practices and to bring brokerage commissions down. It will make stock as well as commodity markets run efficiently with decrease in transaction costs.

Primary market activities will increase since companies will no longer be able to generate finance through debt. Therefore, increase in listed companies will expand the market and diversify trading opportunities for investors.

A Company must pay dividends regularly and it must not be left on the will of the company directors to decide on this matter. One reason why companies do not pay regular dividends is because of expansion plans in future. But, even then, companies can float fresh shares and pay dividends still to their clientele. It has been explained earlier how scarcity of capital problem would be tackled with abolition of interest complimented with wealth tax and other fiscal incentives.

An investor could be given the right to decide whether he/she wants to get the regular dividend (only if profit is earned) or not. A Company can offer special benefits to those who don't want dividend immediately like selling shares to them at a discount price in IPO and subsequent PO.

Capital gains tax could be introduced. It will discourage day trading and check unnecessary speculation. It will make investors take a long term view and hence decrease market volatility. If necessary, capital losses can be permitted to be adjustable from the capital gains, but not exceeding the capital gains.

Conclusion

This paper suggested an alternate approach to corporate finance in an interest free economy by suggesting alternatives for corporate finance in sourcing funds i.e. i) Ijara with embedded options, ii) limited liability partnership, iii) equity modes like Musharakah and Mudarabah and iv) income bonds. It also suggested alternatives for corporate finance in using funds i.e. i) Islamic income funds, ii) Islamic REITs, iii) Treasury Bonds, iv) income bonds v) convertible income bonds, vi) foreign currency reserves, vii) making strategic expansion, and viii) equity investments in other companies. It also suggested methods of valuation by suggesting an alternate means of pricing capital and use of appropriate discount rate i.e. Nominal GDP growth rate in public finance and corporate finance in CAPM, dividend discount model, project valuation, calculating NPV, valuing income bonds and stocks. It also discussed the scarcity of capital and how it will be tackled and alternatives for insurance in an interest free economy.

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