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Role of Private and Public Sectors in Economic Development in an Islamic Perspective

Proceedings of the Fifth International Islamic Economics Seminar 1993

Edited by Ehsan Ahmed

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Role of Private and Public Sectors in Economic Development in an Islamic Perspective

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FOREWARD

In the Name of Allah, Most Beneficent, Most Merciful

I am very pleased indeed to append this message to this volume of proceedings of the 1993 Seminar on Islamic Economics edited by Dr. Ehsan Ahmad. Please accept my sincere congratulations on the successful completion of this commendable work. It will, inshaAllah, lend a fillip to the ever increasing interest in Islamic values, precepts, and institutions in the economic domain and especially in Islam's interest free banking system.

Besides the relatively earlier works of Professor Khursheed Ahmed and Dr. Nejatullah Siddiqi in the field of Islamic Economics, Muslim economists associated with the Muslim Students Association (MSA) of North America such as Drs. Umar Chapra and Masudul Alam Chaudhury, Iqbal Mehdi, Muhammad Anwar, and many others launched the pioneering efforts at reviving the Islamic principles and highlighting past contributions of Muslim economists of the heyday of Islam. These proceedings have certainly added to their accomplishments.

Over the years, valid research results in Economics and other social sciences, based on the Tawhidi perspective of Islam, have been consistently appearing in the American Journal of Islamic Social Sciences (AJISS) of the Association of Muslim Social Scientists (AMSS) and the International Institute of Islamic Thought (IIIT) as well as in other reputed professional journals worldwide. These core studies have greatly complemented each other's efforts, and have thus posited a critique of and a challenge to all economic theories based on stark materialism.

The immediate need of the Muslim ummah, inter alia, is to break the chains of continued poverty and economic bondage to external forces. It is a matter of gratification that the research papers included here are not all of purely theoretical nature, but there are specific case studies of Muslim economies, out of which practical problem solving models can be derived. The process of testing current economic theories and formulating new ones can help us replace myopically materialistic instructional and curricular contents used in Muslim countries at secondary and tertiary levels. Development of practical models for solving economic problems of the ummah is also an equally urgent matter.

On behalf of the Executive Committee of the Association of Muslim Social Scientists as well as on my own behalf, I would like to register our sincere appreciation for the presenters in and the organizers of the 1993 AMSS Seminar on Islamic Economics, as well as to Dr. Ehsan Ahmed of James Madison University, Harrisonburg, VA for completing this stupendous task of editing this volume. I pray to Allah (SWT) for granting further successes to all involved in this and other worthy causes of His. Kullo Taufiq Min Allah!

Dilnawaz A. Siddiqui, Ph.D.
President, AMSS

INTRODUCTION

From the time the third world, including the Muslim world, first came face to face with crippling economic crises caused by internal and external factors alike, it has attempted to implement development plans that would restore its economic equilibrium and put it on the road to progress. Development programs, however, differ between the far right and its emphasis on private enterprise and ownership, and the far left and its notions of government control and public ownership. Moreover, between the two extremes are numerous programs that combine, to one degree or another, elements of both. At times, then, such plans will yield questionable results, especially when they are imported and implemented under conditions that differ significantly than those for which they were originally intended. Thus, while there are some instances of success, there are quite a few examples of failure and disappointment.

The contemporary Muslim mind is thus forced to ask itself about the role of Islamic economic thought in showing the way to progress and laying the conceptual and methodological foundations of an effective plan. Indeed, over the past two decades a good number of Muslim writers have dealt with this subject and presented the results of their work at various conferences and seminars. Among these gatherings was the one held in 1993 to discuss the roles of the private and public sectors in the development of the Muslim world. This volume contains the papers presented at that conference.

Since the major concern of the International Institute of Islamic Thought is with Islamization, through the encouragement of scholars to lay the intellectual foundations by means of which the Muslim world will be able to determine its own future, the Institute found in this conference an excellent channel for participation in enriching the literature in the field, and for laying another brick in the foundation of its own undertaking, the Islamization of Knowledge including the Islamization of Economics.

The degree to which plans combine elements of the public and private, either in production or in services, will be determined by the particular circumstances of each state; by its human resources and by its agricultural, commercial, and industrial demographics. The culture common to Islamic society, the one which governs the behavior of both producer and consumer represents a collective thread which needs to be studied from the perspectives of both theology and the higher purposes of Islamic law. This is what lends legitimacy and objectivity to the study of the Islamic perspective on the roles of the individual/private and those of the group/public in the process of building and development This is what this excellent conference, through the scholarly papers published in this volume on theory and practice, has contributed.

The International Institute of Islamic Thought is therefore pleased to publish the proceedings of this important conference in its series of conference proceedings. By means of these publications, it may be hoped that as the academic output increases, the field will be enriched and discourse will be enlivened. Finally, it will be by these means that true Islamic perspectives on the issues will develop, and the Ummah will regain the ability to plan for its future, by itself, with its own ideas, and in the light of authentic Islamic teachings.

In closing, we ask the Almighty to help us continue down the road we begun to follow. And He is the only true Guide!

Mohieldin Attia
Academic Advisor
The International Institure of Islamic Thought

PREFACE

It is my distinct pleasure to introduce this volume of ten papers selected from the Fifth International Islamic Economics Seminar held in Washington, D.C. in October of 1993. The seminar entitled "The Role of Private and Public Sectors in Economic Development in an Islamic Perspective", was jointly sponsored by the Association of Muslim Social Scientists (AMSS) and the International Institute of Islamic Thought (IIIT).

This volume is being published at the time when throughout the world, the relative role of public and private sectors is being debated. The disintegration of the former Soviet Union (and, effectively of communism) has prompted the rulers and public policy makers in many countries to redefine the economic structures of their respective societies. Discussions about the liberalization of markets and enhancing productivity and employment by promoting private sector ventures are now commonplace in academic and nonacademic forums alike. All these debates are being undertaken to replace the centrally planned economic systems with one form of capitalism or the other. Most Muslim countries, which have had some mix of private and public sectors, are trying to follow these worldwide trends in order to be a part of what is now becoming a global trend. Moreover, the developing countries including large number of Muslim nations are constantly pressured politically by international agencies like the IMF, IFC and the World bank as well as more dominant industrial nations to conform to these new changes or lose their accessibility and shares in rapidly changing global markets.

However, the key question which must be asked by all Muslim countries is what place the Islamic guidelines have in their economic systems so that they can succeed in eliminating the vicious cycle of poverty and economic backwardness. Many man-made systems (including the several forms of capitalism now in vogue in Europe and America) have no significant role for any divine guidance. Any system devoid of the fundamental moral and ethical values and traits of true social justice is likely to fail as miserably as the so-called communism. Most Muslim scholars (including many economists) and government policy makers are gradually recognizing the need to Islamize the current socioeconomic structures in the Muslim world. This task is not easy. Throughout history, most rulers in Muslim countries have used their national economic resources to strengthen their political power. They have found it extremely desirable to promote the economic activities in the public sector, which enhances their hold on political and economic power. The heavy emphasis on the public sector has not only resulted in low productivity in their already stagnant economies, but also increased corruption and caused serious financial problems. Most Muslim countries suffer from huge budget deficits which takes away much needed capital from more productive enterprises in the private sector. Most Muslim countries are now seeking to establish free or liberalized markets with heavy emphasis on promoting economic activities in the private sector. However, the concept of liberalized or free markets with minimal government intervention is not new in the Islamic system. There has been considerable discussion of private ownership in most sources of Shari'ah (Islamic jurisprudence). A large number of these sources identify economic activities which can be done in public and private sectors with utmost efficiency.

The major purpose of the 1993 seminar was to provide a forum for researchers in Islamic economics to discuss these issues regarding the relative roles of public and private sectors. The papers in this volume have been selected after a confidential peer review. Most papers were revised at least once, and some even twice, before consideration for publication in this volume. Each paper submitted for this volume was reviewed by an anonymous referee (usually an academic economist) to assess its specific contribution to the literature on Islamic economics. Those recommended by the referees were then fully revised and resubmitted. This careful process of review and selection took one full year to produce this volume. The organization of the papers is done with the purpose of introducing the theoretical papers in the beginning of the volume and placing empirical studies in the last part of the volume. These paper reflect diversity of topics, philosophy, and opinions expressed by various researchers in Islamic economics. Therefore, the final selection was not made on the basis of any specific school of thought in Islamic jurisprudence but to represent the diversity of opinions which exist in the field of economics in general and in Islamic economics in particular. There are at least three papers regarding Islamic finance, financial instruments and institutions and three covering the theoretical foundations of the Islamic principles regarding the role of private and public sectors. The last four papers cover some available empirical evidence from the Muslim world.

The first paper entitled "Why Cannot Neoclassicalism Explain Resource Allocation and Development In the Islamic Political Economy?", by Masudul Alam Choudhury undertakes a critical examination of neo-classical methodology on grounds of its theoretical, empirical and ethical deficiencies. According to Choudhury, these problems stem from the axioms and assumptions of philosophical dualism, marginalism, and substitution and the policy as well as institutional perspectives so rendered. The neoclassical models are ethically as well as methodologically inapplicable in Islamic economies. Instead he introduces a knowledge-based world view of development and resource allocation. His paper also produces an empirical analysis of characteristics of Islamic countries among the commonwealth of independent states, following the demise of former Soviet Union. The next paper in this volume is by Jamal Abu-Rashed and Abdelhafid Belarbi. Their paper, entitled "Altruism in the Conduct of the Private and Public Sectors", emphasizes that the role of private and public sectors in economic development within an Islamic perspective is founded on its own behavioral norms, prospects and institutions. According to conventional wisdom, such a system cannot be expected to serve as a driving force for modern economic development. However, the traditional approaches to economic development have failed to yield desirable results as evident by the mass poverty and indispensability of hunger and affluence in most Muslim as well as many developing countries. This paper argues that altruism can be regarded as a substitution or an alternative for the innate selfishness foundation of human economic nature. The paper explores the potential benefits of institutionalizing altruism in free markets and how it can help promote the process of economic development in Muslim countries.

The third paper in this selection is entitled "The Role of Public and Private Sectors in Economic Development in an Islamic Perspective". Imtiaz Uddin Ahmad discusses how Islam encourages individual initiative, promotion of entrepreneurial spirit of achievement, and private enterprise. His detailed discussion concludes that within the Islamic perspective, the role of Public sector should be confined to only the areas which are either inaccessible or unmanageable by the private sector, unprofitable or unwelcome due to their defense or strategic significance and strict security requirement. The paper shows that except for a few, most of the enterprises belong to the private sector. Banking is one of the areas where there is immediate need to introduce comprehensive Islamic reforms. This takes us to a paper by S.M. Ali Akkas, entitled "Operation of an Islamic Bank Under Conventional Banking Framework: A Comparative Efficiency Analysis". Akkas points out that most of the literature claims that Islamic Banking is superior to its conventional counterpart. However, the analytical framework used in measuring their relative efficiency is static. His study introduces a dynamic analysis with a view to see what happens with the situation in which Islamic banks operate under conventional banking framework. The finding is that Islamic banking cannot maintain its claimed superior efficiency level due to the fact that a conventional bank charges the same rate of return for projects with variable rates of return. This encourages entrepreneurs with projects having high profitability to switch over from Islamic Banking to conventional banking since the former shares ratios of profit earned by the borrowing entrepreneurs, which means a higher cost of borrowing with the increase in the rate of return.

After dealing with efficiency issues in the banking business, we turn our attention to fundamentals of finance. The next paper is by Abdul Aziz entitled "Islamic Corporate Finance: A Tool for the Development of Muslim Countries". This paper explores the application of Islamic principles to three major areas of corporate finance, namely cost of capital and capital budgeting, management of working capital and dividend policy. This paper is very important with regard to introducing the process of Islamization of knowledge. He postulates that the elimination of fixed income and debt securities will result in no hardships in the performance of managerial finance function. He concludes that the use of straight equity in a total Islamic environment will accelerate the economic development of Muslim countries. The next important piece of literature is entitled "Theory of Participating Term Certificates: A General Equilibrium Perspective", written by Muhammed-Shahid Ebrahim. Ebrahim's work deals with the validity of specific financial instruments in an Islamic environment. This sophisticated paper deals with a participating term certificate, which is a debt instrument that provides the financing of a business at an interest rate which is a function of the net operating income and the appreciation of the business. According to Ebrahim, this financing technique does not contradict the moral tenets of Islam. It is currently being used in several Muslim countries including Indonesia, Pakistan, Malaysia etc. It should be noted that Ebrahim's study develops a mathematical model of a participating term certificate using general equilibrium theory for risk averse investors and to present the properties of the equilibrium conditions under this form of financing, which is a meritorious contribution to the existing literature on the subject.

The next paper handles a very interesting contemporary issue being debated among American Muslims. The paper entitled "Muslim Attitudes Toward Islamic Finance: A Review Lecture and an American Survey", authored by J. W. Wright. Wright's work points out that popular rhetoric suggests a need for Islamic banks in the United States, but very little evidence or social analysis is available in this area. Wright's study is based on a survey of numerous American Muslims. He postulates that Islamic banks can alleviate Muslim community finance gaps, but that American Muslims' attitudes toward Islamic finance must be favorable for these ventures to succeed. In this study, a survey of Arab American Muslims indicates that Islamic finance is likely to succeed in the U.S., but only if banks are willing to address issues about security, insurance, and ethnic diversity. These are some of the issues also being debated among traditional bankers of the U.S. to improve economic conditions in urban areas of the United States.

Our attention now focuses on the next three papers, which are based on case studies of some Muslim countries. The first article is "The Role of Public and Private sectors in Islamization of the Economy of Iran" by Syed Iqbal Mahdi. In this paper, Mahdi evaluates the performance of the Iranian economy since the 1979 revolution, which promised to Islamize all spheres of its society immediately. The process of Islamization has been a focus of long debate among Iranian politicians. The study finds that Iran's strategy of heavy reliance on central planning and the public sector to promote economic development failed to achieve the goals of Islamization of its economy. It is evident that Iran's revolutionary government expected too much from the public sector. It overemphasized distribution relative to actual production of output. The study suggests the need for a balance between the growth of private and of public sectors. The paper also emphasizes the need for new tools of Islamic economic policy, besides imposition of *zakah* and abolition of interest, in order to achieve the goal of Islamization. I should note, however, that current problems with the Iranian economy do not imply that the Islamic system has failed, but it merely indicates that a gradual approach toward Islamization is more plausible than trying to change the system overnight. Islamic policy makers must stimulate the growth of output before converting the economy into a welfare state.

The next article by Abdel Ḥamīd Bashir investigates the relationship between government policy and economic growth in an Islamic framework. At first a simple model relating monetary policy to economic growth is developed. According to this model, government policies that favor inflation tax revenues to finance the deficit tend to increase the demand for money by lowering the profit-sharing ratio (or increasing the required reverse ratio). According to Bashir, such policies discourage investment and eventually reduce growth. Bashir uses cross-country data to test the model, and the empirical evidence confirms his theoretical analysis. It should be noted that Bashir's study makes a good attempt to investigate the data from Muslim countries. However it should not be taken as a verification or rejection of Islamic principles. None of the countries in the sample have implemented the Islamic system in its entirety. The institutions in these countries do not fully conform to Islamic principles, and it will be a long time before we obtain some credible evidence from the Muslim world.

The last paper in this volume studies the development of the Egyptian public sector and examines the socio-economic background and responsibilities of its managers during Nasser's socialist period. The paper assesses the impact of new managers who share Nasser's Arab socialist ideals on the management side of public sector. The study notes an interesting paradox by pointing out that capitalist trained instructors were used to implement socialist economic principles. One lesson we can learn from this study is that unless the policy makers are trained adequately in Islamic economics, they will fail to implement the Islamic system. In most Muslim countries, the Islamic system is not implemented because western trained economists and policy makers lack commitment, integrity and resolve to implement the Islamic economic system. In most Muslim countries, the would-be leaders often use Islamic idealogy as political rhetoric, but lack a solid commitment to implement the Islamic system. This is particularly true about the large Muslim country, Pakistan, where politicians have been debating the Islamic system for decades, but rarely have done anything to implement it. The most they have done is to "face lift" the constitution, which purports to establish and promote an Islamic state.

The introduction to this volume will not be complete without an acknowledgement of the hard work done by Syed Iqbal Mahdi, who chaired the program committee of this conference. I must also acknowledge the efforts of Sultan Ahmad, who gave his valuable time to put this program together. My gratitude must be expressed to Dr. Syed M. Syeed, whose continuous support made this volume possible. I must also recognize the referees who volunteered their time to read these papers and make valuable suggestions to improve their quality. I commend the authors for working very hard to finish their manuscripts in a very timely fashion to meet our final deadline. I must also recognize the authors who presented their papers in the conference, but were not included in this volume due to very limited space.

By and large, the distinguished group of professional economists I worked with to finish this volume deserve my appreciation and thanks. My thanks also go to Muhammad Salem, Muhieldin Attia, Muhammad Jaglit and other officials of IIIT for financing this project despite major budgetary constraint. I am hopeful that this collection of work will enhance the process of Islamization of knowledge and that the field of economics in general will benefit from these efforts.

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WHY CANNOT NEOCLASSICISM EXPLAIN RESOURCE ALLOCATION AND DEVELOPMENT IN THE ISLAMIC POLITICAL ECONOMY?

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ABSTRACT

The paper undertakes a critical examination of neo-classical methodology on grounds of its theoretical, empirical and ethical deficiencies. These problems are shown to stem from the axioms and assumptions of philosophical dualism, marginalism and substitution and the resultant policies and institutional perspectives. The sum total of gross unrealism and unethical core of neoclassicism are then shown to make it not only methodologically inapplicable, but also deeply unethical for usage in Islamic political economy involving issues of resource allocation, development and institutionalism.

As opposed to neo-classical methodology, which has sorrowfully become rampant among Islamic economists, a knowledge-based world view of development and resource allocation is introduced. This methodology is shown to be the *sui generis* of Islamic political economy. The theoretical and institutional implications, resource allocation and development in Islamic perspectives are explained in terms of this unique methodology in sharp contrast to neo-classicism.

Empirical issues with regards to the gross unethical and capitalist debacle following the socialist and communist failures in Islamic countries of the Commonwealth of Independent States are brought out in reference to their neo-classical roots. The underlying policies and approaches of the IMF and World Bank are thus criticized in these respects. The alternative approach under the direction of the Islamic knowledge-centered world view of development is then pointed out.

*We wish to thank the anonymous referees and the editor for their helpful comments on previous versions of this paper. The usual caveat holds.

WHY CANNOT NEOCLASSICISM EXPLAIN RESOURCE ALLOCATION AND DEVELOPMENT IN THE ISLAMIC POLITICAL ECONOMY?

The subject matter of resource allocation is central to the study of the role of private and public sectors in economic development. By the latter concept we mean the structural transformation of the economy along lines of attaining economic efficiency and distributive equity. In Islamic approaches to socio-economic matters, the focus on these targets assumes a precise and methodological content. The issue then is: Is it at all possible to realize both economic efficiency (the material welfare) and distributive equity (the moral worth) simultaneously in an Islamic economic framework using neo-classical methodology?

Objectives of this Paper

It is our objective in this paper to answer this question in an analytical and empirical light. However, we cannot be exhaustive in the Islamic critique of the neo-classical doctrine in an all-comprehending analytical and philosophical depth. We will also not formulate the Islamic politico-economic methodology in its analytical dimensions. For these other details, the reader may refer to the literature.[1] The neo-classical methodology will be implicated with both the capitalist and socialist/communist doctrines while examining the approach to privatization in the capitalist transition of the Muslim Commonwealth of Independent States. The neo-classical premise of these doctrines has been well established in the literature.[2]

The Ethical Constraints of Neo-classical Economics

According to Phelps, distributive equity is not the focus of neo-classical economic order, because under rational choices, the economistic motive to maximize profits, utility, output and productivity renders the ethical goal of distributive equity less attractive, more costly to attain than economic efficiency.[3] The same argument relating to rational choice is applicable in another extreme case as well. This is the case of choices between two distributional states—moral targets. Here first, with no technological change being assumed either in labour or capital, the choices open to the rational individual (firm) are two-fold. If less equity is chosen over more equity, it implies an unethical choice, since the demand and need for equitable distribution remain unrealized. If more equity is chosen over less, then a sacrifice of economic efficiency must be made somewhere in the economic system. Now, in a general intersectorial case of a multisectorial economy, such a trade-off between greater distributive equity and lesser economic efficiency becomes untenable in a market of output optimizing firms and utility maximizing consumers.[4]

This case of market-directed response to agent-specific behaviour in neo-classical economics has also been explained by Sen in terms of what he calls as market consequentialism.[5] This is the idea that market orientation depends upon the types of consumer preferences possible in it. In a neo-classical economic system, market consequentialism cannot be in favour of distributive equity, when scarce resources are being allocated across competing ends for the purpose of output and utility optimization. Market consequentialism assumes an even more aggressive hedonic proportion when utilitarianism is introduced for preference formation in a market setting.

WHAT IS NEO-CLASSICAL ECONOMIC METHODOLOGY?

We are now ready to formalize the meaning of neo-classical economic methodology. The axioms of neoclassicism are, (1) existence of full information; (2) existence of transitivity of alternate choices; (3) strictly positive marginal utility/product if, and only if, non-zero inputs exist.

The immediate consequence of full-information axiom is to enable rational choices. This rational choice is then instrumentalized by the axiom of transitivity. In fact, many economists are prone to identify the concept of economic rationality solely with the axiom of transitivity.[6]

Other consequences also follow from these axioms. The existence of full information in either perfect competition or imperfect competition assumes that agents are able to maximize their own self-interests and maximize on their individual rational choices. This leads to independence among rational agents, establishing thus a causal relation between economic competition of any kind and the degree of agent-specific independence attained. That is, competition is realized in the presence of the axioms. Besides, if competition exists, then optimal information must be available to agents. This result is a classical one in the theory of perfect competition.[7]

In neo-classical oligopolistic behaviour, two kinds of contradictions appear. First, full information for individual agents does not exist now. Yet the same first-order optimization methodology is maintained to explain resource allocation.[8] Second, in the case of oligopolistic (including duopolistic) collusion, interdependence among agents is explained in terms of competition between colluding firms.[9]

Thus in all cases, an optimization methodology is maintained, although lack of full information would not logically enable this to occur in the case of interdepedence. The result, then, is that there can be no global interdependence among agents in the neoclassical framework. Oligopolistic firms appear as groups of competitors, as Lindbeck points out.[10] Inter-agent independence thus becomes the converging consequence of neo-classical methodology. This makes resource allocation dependent upon the substitution principle at large. That is, although complementarity can exist between goods (as in the case of intra-oligopoly firms), yet there remains independence and competition between groups. Hence, there is substitution in resource allocation between such competing groups. The concept of *lobal* complementarity thereby loses validity in neo-classical resource allocation methodology.

Independence, competition and substitution as causal relations arising from the neo-classical axioms also generate equilibrium states of resource allocation. Such equilibrium states depend upon the intrinsic assumption-that independence is the long-run *ex post* consequence of historical interactions that become exogenous to the equilibrium condition attained. Economic competition in the methodological sense, leads to independence of states in the long run. This is often referred to in the literature as the state of methodological individualism,[11] with agents now having run their historical interactions arriving at a long-run state of competition wherein equilibrium is made possible. In this perspective of competition and equilibrium, resources are treated as scarce. Consequently, marginal substitution becomes the logical tool of analysis for neo-classical economics.

Methodological individualism and methodological optimization are conjoint and logical pictures of the neo-classical school. They present the individual as a self-seeking (not simply self-interested) individuated category pitted against others for optimal share of resources under the motive of enhancing the goals of economic efficiency in the midst of market consequentialism. The resulting competition, now explained by the neo-classical principle of substitution, is a picture of duality of being. In respect to the trade-off between economic efficiency and distributive equity, there is duality between these moral and material aspects of human welfare.

In regards to the methodological concept of competition, there remains 'duality' between non-interacting agents. In choices between 'goods' and 'bads', between 'goods' and 'goods', between 'bads' and 'bads', there is a basket comprising all these categories as independent possibilities of choices. Thus, the principle of substitution permits the choice between ethical and unethical bundles as a *permanent* possibility that cannot change in the long run with the advance of knowledge respecting these choices.

THE SOCIAL ECONOMIC CONSEQUENCES OF NEO-CLASSICAL ECONOMICS.

The literature on social welfare, social choice and public choice economics is seen as a reformulation of the underlying neoclassical methodology. It is now extended to the political and social dimensions. The result is that what arises as a methodological problem of neo-classical micro-economics is now transmitted to institutions, governments and the political economy as well. Thus, political cycles are treated as positivistic observations to explain the self-seeking, self-perpetuating behaviour of politicians near election times.[12] New institutionalism is a study of transaction cost-minimization, seen to result from the optimizing behaviour of stakeholders seeking to minimize social conflicts.[13] Formalization of social welfare function is a neoclassical aggregation of communal utilities. It is subject to the first and second order conditions of welfare optimization, extended globally over a larger economic space.[14]

In all such economic states, households, factor markets, product markets and governments/institutions reflect the aggregative rational behaviour at the level of individuals and firms. Thus, neo-classicism is made to apply to institutions at large. In this extended sense too, methodological individualism, methodological optimization and competition, followed by their hidden dualistic consequences, cannot attain moral-material simultaneity. Resource allocation of all kinds is subjected to these dualistically subsituting consequences.

The underlying dualism of matter and spirit, conveyed in the impossibility for moral-material simultaneity and in *permanently* allowing bundles of good-bad/bad-bad/good-good choices to arise *out of substitution*, is not resolved by the neo-classical optimal choice on the production frontier. It is also not resolved by inserting technological advance into the neo-classical production and consumption menus.

In the case of determining choice on the optimal production frontier (or portfolio set),[15] such a point is seen as the result of the long-run consequences of competition, full-information, methodological individualism and equilibrium. They appear as choices intrinsically benign to the process of historical interactions among agents. These learning processes become redundant as exogenous factors in neo-classical decision making, once the above types of long-run implications of optimality equilibrium are assigned. This is true as well—and in a contradictory way—for both perfectly and imperfectly competitive firms.

Next, consider the result of technological induction on resource allocation in the neo-classical framework. Neo-classical optimal choices are long-run phenomena. Hence, evolution of the optimal production frontier under technological induction means the evolution of allocative points over the long run. Within every such period of time, the axioms, conditions and socio-economic implications of neo-classical resource allocation characterize the entire technologically induced trajectory of growth.

Besides, technology as a long-run condition that abides by the optimal-equilibrium state of rational choices in neo-classical order itself becomes interactivly benign. This socially noninteractive nature of technological change makes it simply dynamically evolutionary over time, but not over states. A cause and effect process that should be instrumental in technological evolution is thereby absent in the neo-classical version of technological change. Thus, neo-classical technological change remains exogenous to resource allocation. Hence, the neo-classical evolutionary growth trajectory is simply a repetitive exogenous induction of technology over time.

A Summary of the Above Sections

We thereby note that there is a one-to-one correspondence among optimality, equilibrium, substitution, methodological individualism and economic rationality. All of these are instrumental in establishing an intrinsically non-interactive socio-economic model of reality. It is essentially this non-interactive nature of neo-classical methodology that makes the latter ethically neutral, socially benign and technologically exogenous, what otherwise should be a morally centered social, economic and political reality. The nature of non-interactive technological induction in neo-classical methodology is also extensive and damaging because of its inability to address the social, political and economic problems and processes in an interactive and integrated way.[16]

The moral-material dualism, which was seen as the causal form in neo-classical methodology in terms of resource allocation, both in the tangible and moral plane, is also the principal cause of social benignity. Dualism here arises from a deeper philosophical belief in occidental culture that wraps up its perception of modernity and science thoroughly.

THE PHILOSOPHICAL ROOTS OF NEO-CLASSICAL DUALISM.

Neo-classical dualism derives itself from Hellenic culture, which treats the laws of the universe as a divine embodiment in telos and a phyical representation of divinity in lived experience.[17] Such a Hellenic perception o reality divided between the two forms necessitates that cognition be a one-directional determinism of the divine laws a posteriori. But there exists no reverse causality from the *a posteioi* to the *a priori* world. Thus, cognitive phenomena, in turn, are unable in this order to unravel the unfolding knowledge of divine *a priorism*. Hence, a cause-effect evolutionary knowledge formation of the uniquely unified universal reality remains structurally impossible in the Hellenic roots of rationalism. This circular impossibility in knowledge regeneration renders the divine laws dynamically inactive, and hence unnecessary, toward explaining the real world and its socio-scientific symbiosis.

In the Age of Enlightenment, this separation between the divine laws and lived experience embraced the Church. It resulted in an intellectual backlash from the scientific community. This sounded the knell of religious hegemony over scientific matters. It gave rise instead to the rationalistic philosophy of life in the eighteenth century, separating science from the divine precepts. The rationalistic movement was led most preeminently by Newton, Kant, Descartes, Hume and Heidegger, Adam Smith, Bentham and Leon Walras.[18] Duality between the moral and material essences of an otherwise unified reality was thus rendered complete in the western world.

When we come to neoclassicism, the same dualism represents itself in the form of mutual independence caused by non-interactive benignity and by its principle of substitution globally. It is also seriously caused by the non-existence of cause and effect through the circular interrelationships between the epistemological roots and the ontic forms of the market. We thereby find the sole primacy of the market to be based in its consequentialism, and the sole primacy of individuated consumer preferences to be instrumental in moulding the entire system of consumption-production-distributional activities. Consumer preferences like technology and the epistemic *praxis* of human reason remain exogenous in the neo-classical order.[19]

We will further explain this epistemic-ontic *praxis* of neoclassicism as follows:[20] The product market determines its supply of goods by supply prices and outputs that are seen to be determined not by the demand side, but by the marginal cost conditions of the firms in either perfect or imperfect conditions. Consumer demand (hence, market demand) in the product market is determined by conditions prevailing on the demand side of price formation, as given by the marginal utilities of the goods. Supply price *equates* demand price to establish equilibrium price and output in the context of these two independent sides of price determination. Subsequently, costs are minimized, profits are optimized, and individual utilities are maximized simultaneously. This is a result for both the partial and general equilibrium conditions of markets. Such a methodology is applied to both perfect and imperfect equilibrium in neo-classical economics.

The first methodological problem to arise from the above kind of market exchange is the incompatibility of the underlying perspectives of prices in the two cases. For if exchange is demand driven, then demand prices must predominate. Now, all possible supply prices, p_s, must be determined by all possible demand prices, p_d. Thus as a function, $p_s = p_s(p_d)$. Furthermore, the supply function, S(.) is such that, as a function, $q_s = S(p_s) = S(p_s(p_d))$, where q_s denotes the quantity supplied at price p_S. Likewise, it can be argued that for the demand side, $q_d = D(p_d(p_s))$.

From these relations, we obtain the excess demand function, $E = E(p_d, p_s)$. Let us define $E = E(p_d, p_s) = S(p_d, p_s) - D(p_d, p_s)$. Subsequently, $dE/dp_d = (\alpha E/\alpha p_s).(dp_s/dp_d) + (\alpha E/\alpha p_d)$, Now as p_d increases, p_s increases as well by the above relationship between these price variables. Then $S(P_d, p_s)$ increases with increasing p_s; and $D(p_d, p_s)$ decreases with increasing p_d. Thus, $(\alpha E/\alpha p_s) > 0$, $(\alpha E/\alpha p_s) > 0$, and $dp_s/dp_d > 0$. Hence it is impossible in the above case that $dE/dp_d < 0$, the condition required for market equilibrium to exist. Likewise, it can be shown that it is impossible for $dE/dp_s < 0$.[21] Therefore, the only way in which a market equilibrium can exist in either the Walraisian or the Marshallian sense, is to assume that market equilibrium price exists, without explaining the above problems of its existence.[22] The existence of market equilibrium, the underlying behaviours of pricing and objective functions, thus become axiomatic premises of neo-classical economic theory. This rules out the possibility of integrating the demand and supply price mechanisms when one predominates over the other from the price and quantity sides. Hence, the underlying behavioural relationship in all of neo-classical economics remains to be methodological individualism of maximizing behaviour.[23]

The above kind of indeterminacy of market equilibrium in the ontic sense is found to occur in the factors market and the monetary sector. In the factors market, a Pareto optimal general equilibrium result necesitates that consumers' rate of commodity substitution between supply of factors and demand for commodities must equal the corresponding factor-specific marginal products. That is, factor prices will be determined proportionately to the consumers' rate of commodity substitution. Hence, factor prices become indeterminate corresponding to the indeterminacy between demand and supply prices of goods, as explained earlier. This point also implies that the marginal productivities of factors remain unobservable quantities. Hence, factor prices cannot be determined in terms of marginal products, as suggested by the general equilibrium result.[24]

In the monetary sector, the price of money is taken to be interest rate, which measures a speculative value of uncertainty. Whereas, money is used to transact goods/services, which attain actual prices. Thus the return on money must be the return on the good/service, which is its price. How can interest rate be then taken as a price of money replacing the objective value in terms of the prices of goods/services? There is a problem of inconsistency here, which is not resolved by the ontological meaning of quantity theory of money or by the keynesian demand for liquidity preferences and the LM-curve.[25]

Indeed, with such an axiomatic assumption, market prices like consumer prices cannot be observed. We thus encounter the problem of not observing an a priori axiomatic entity.[26] Contrarily, given the different molds of pricing and exchange behaviour in the market system, such as cooperation, competitive-cooperation, satisfying behaviour of consumers and firms, polity-market interactive decision making, it becomes impossible to explain the theoretical and institutional experiences of economic competition of no-classical economics. Here the ontic philosophy does not convey reality. Thus, both the epistemic and the ontic experiences of market economy as perceived in mainstream economics, are foreign to the otherwise, essentially interactive and integrative functions of agents in alternative forms of market systems.[27]

What is Different and New in the Islamic Politico-Economic World View?

The Formulation of the Knowledge-Based Model of Polity-Market Interactive World View: Replacing Substitution Methodology by the Principle of Universal Complementarity.

It is now clear that to break away from the trade-off between the goals of social justice and economic efficiency the neo-classical doctrine , applied either to capitalist or socialist doctrines of structural transformation, does not work out. Such an ingrained root of substitution between felicitous and productive alternatives in these doctrines also causes the notion of prices to appear as certain values in either of these systems. These prices turn out to be optimal exchange values in the capitalist system and conjectured use-values in the Marxist system. But in both the primally intrinsic worth imputed in the goods by Divine Providence is epistemologically ignored. Thus, the moral and ethical basis of all epistemologies does not exist in these systems by their very design and inception.

To get away from this epistemologically empty premise of moral-material worth in the goods transacted through market venue, we must, therefore, replace totally the idea of substitution by the principle of Universal Complementarity (Simultaneity). To realize this principle, an altogether new epistemological world view must be invoked. This is the interactive knowledge-based Islamic world view that we will present below:

In figure 1, the polity box shows its components in terms of the epistemological roots based on the precept that the Divine Laws emanate from a balanced, purposive, just and felicitous order of existence. Subsequently, they aim at interactively integrating the various systems of existence in their minutest details on the premise of the Divine Laws. This is the precept which asserts that the Unity of God is the cause and effect of the interactively integrated process of the universe and finds its expression both in the realm of comprehension and in the order of cogntive reality. Thus, in the epistemology of the Unicity Precept, the difference between the Kantian a *priori* and a *posteriori* is annulled. The ontic difference between form and reality too is rendered unsubstantive. The epistemic and the ontic are merged together in the continuous evolution of knowledge through circularity of cause and effect between comprehension and cognition and their dynamic recreation.[29]

Thus, this epistemological premise is instilled into the laws of life and thought in the most extensive socio-scientific domains.[30] They take up textual forms and are recorded, evolved and applied in progression of experience generated by cause and effect. Thereby, institutions and rules are formulated to perpetuate the knowledge derived from the Divine Laws into socio-scientific actions. The interconnection among the E-box (epistemology), the L-box (Divine Laws), the I-box (institutions) denote the interactive knowledge forming process that proceeds on within the polity box.[31]

But unlike the Gosplan or the Politbureau of the Communist State, wherein centralized decisions are made by bureaucracy within itself, with no cognizance of the markets and the grassroots of society at large; and unlike the Capitalist system, where all interactions become atomistically assumed, not explicitly manifested, the polity box cannot gain its knowledge in isolation from the market (ecological) order. Thus, figure 1 shows the market (ecological) box. In the case of poitical economy, it comprises the consumption menu, the production menu and the distribution menu. Rule formation in polity, based on the epistemological references of all specific questions of life, are made to act upon the market order. That is, a set of polity specific preferences are formed in the polity box and are turned into actions impacting upon the potential moral-material transformation of the menus of consumption, production and distribution.

The net result expected is the delivery of the moral-material augmented social good (common good).

The response from the market order to the polity box is thus sensitized by the rule-formation and its impact on the market menus and choices. Such a response is, therefore, a set of preferences formed outside polity, but in the midst of the interactions between the sets of polity and market preferences. Such reactions from the market order to polity appear as checks, balances, revisions, acceptance or rejection of the previous rules. A post-evaluation thus ensues in the polity box of the past set of polity-preferences and their interactions with the market preferences. The polity and market systems are thus full of the most decentralized groups of decision makers. The prerequisite for such decision makers (*Sharees*) is their good functional correspondence with the rulemaking methodology of the Islamic epistemological reference, the Shari'ah. It is also required for the decision makers in polity to be of high Islamic character and knowledge to be able to discern the epistemological questions related to specific issues within the total framework of the Unicity Precept (*Tawhid* and Sunnah).

It is important to note that the rule-making in the embryonic and pervasive concept of *Shura* and the *Shuratic* Process necessitàtes minimality conditions of assumptions and axioms, leaving details to specific problems as they arise. Thus, the entirety of Qur'an and only the authentic Sunnah that clearly complement the entirety of Qur'an and that can be reduced to minimally required common groups of Sunnah addressing the axioms of Unification, will enter as candidates in the *Tawhidi* foundation of the *Shuratic* Process. This necessitates primal reliance on those Ahadith and Sunnah that strictly obey the spatial and temporal correspondence to the Prophet Muhammad directly during his lifetime, *and exclude those that were conveyed later on in time by a chain of Isnad (narration)**. By the same token, the foundation of *Shuratic* Process must be devoid of encumbrances of *Fiqh*, the interpretive exegesis of Islamic scholasticism. All such details are to be treated as historical references, not as requirements. The emergence of *Usuli* (epistemological) interpretation in the *Shuratic* process are to be based on the foundation of Qur'an in its entirety, the most authentic Sunnah as complementing the entirety of Qur'ans and the Ijtihad, developing rules (*Ahkam*) based on the emerging understanding of these epistemological sources. The use of Fiqh is to

* It would appear that what the author is trying to express is the need to rely primarily on the universal principles (like those articulated by the Qur'an) which may be derived from the Sunnah, and the need for circumspection in interpreting the Sunnah without consideration for the historical and geographical context of what it records. His comment here in regard to *isnad* is less than germane. (The Publisher).

be for comparative references only just as any other subsidiary piece of information to be used in deliberation. It must not be for purposes of standardization. Thus the minimality condition of the axiomatic foundation of the *Shuratic* Process is established in this way. Such a minimality precept was well supported by early Islamic scholars (*Fuqaha'*) and thinkers. This is also the way to attain any agreement (majority) or Ijma' (consensus) in the Muslim ranks and to come up with a future Ummah (conscious world nation of Islam). Otherwise, history has conclusively proved to the contrary. Furthermore, since the *Shuratic* Process is universal in all systems, so also must the above-mentioned minimality condition be universal in all systems—institutional and scientific.

When the sifting of the interactive preferences between polity and the market order (ecological order) reaches consensus, we say an important juncture of the continuous interactions is attained.[32] Each interaction forms a bit of continuous knowledge; each integration forms a social consensus. Subsequently, fresh rounds of such interactions-integration proceed and knowledge evolves. In this way, it is simply knowledge that unifies all systems of thought and actions through the process of interactions and integrations. The actions formulate the pure epistemics; the responses formulate the pure ontic; the interactions form the epistemic-ontic; and the continuity of the process through the circular chain forms the epistemic-ontic circular causation and continuity model of unified reality attained through the unification of knowledge.

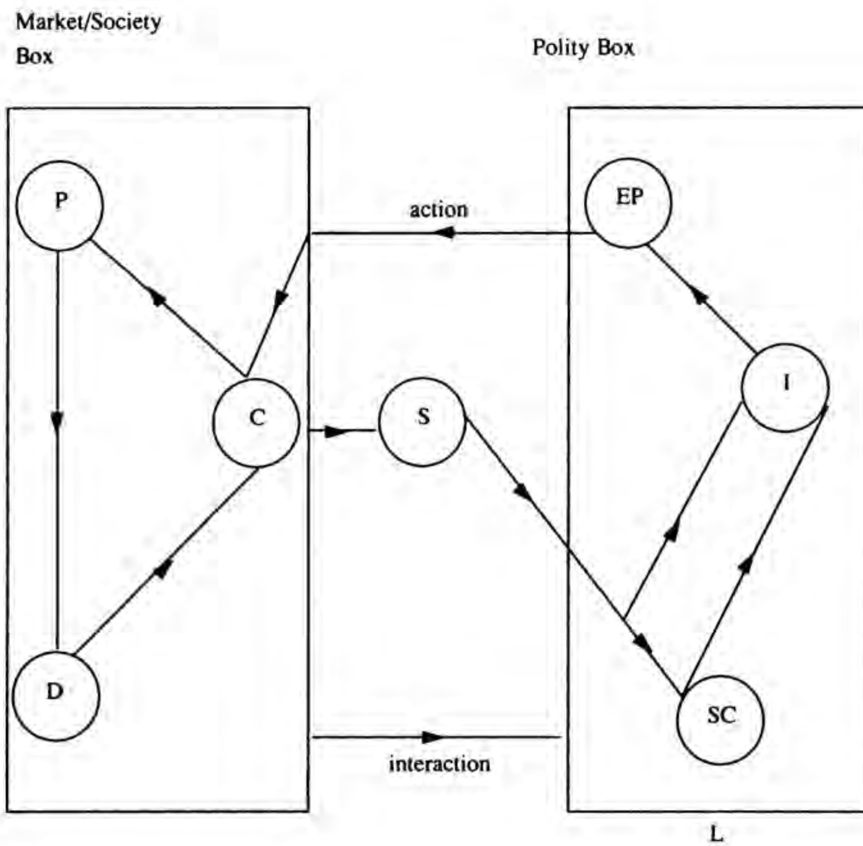
In this system, since knowledge is both the input and output of all systems of mentalistic and cognitive forms, therefore, the equivalence between cause and effect, the epistemic and ontic, the interactve-integrative preferences, and the unification of knowledge based on the uniqueness of the axiom and methodology of the Unicity Precept, establish the Universal Principle of Complementarity. Since knowledge is an affirmation of interactions through progression, and whch then realizes cognitive forms, followed by new realms of knowledge, therefore, such cognitive forms must also be progressive. Such a dynamic concept of the knowledge-induced cognitive process and the recreation of knowledge is denoted by the following functional chain:

$$E(\theta) \rightarrow \{\theta_1\} \rightarrow_{f1} \{x_1\} \rightarrow_{f1} \{\theta_2\} \rightarrow_{f3} \{x_3\} \rightarrow ....$$

where $E(\theta)$ denotes the immutable epistemological premise of knowledge based on the Unicity Precept. This is an optimal stock, which is never realised nor temporally manifest, but is functionally fundamental (foundational) in knowledge formation as flows (evolutionary epistemology). $\{\theta\}$ are flows of knowledge (evolutionary epistemologies) at the ith round of interactions, i=1,2,... $\{x\}$ are the cognitive forms realized by the evolutionary epistemologies. The epistemic-ontic transformations between these variables are accomplished by the functional forms f_1. The values of evolutionary knowledge are assigned ordinally in polity on the basis of the polity-market interactions. The knowledge-induced form of functions such as, $f=f(x_1)(\theta_1), x_2(\theta_2),...x_n(\theta_n))$, can assume the most generalized systemic meanings in the socio-scientific order.

In figure 1 the polity box shows, that there is direct relationship between institutions, I (*Shura* in Islamic polity, but taken here in the strictly *Qur'anic* sense to mean embryonic and pervasive polity over the entire human domain) and the formulation of ethical policies, EP. These ethical policies are made to interact with the market environment as shown. In the market/society box, the usual general equilibrium relationship is shown to exist: consumption, C, relates with production, P, and this with distribution, D. In each case these activities are influenced by the ethical policies. This results in the generation of social product, S. S then sends feedback signals to the polity box in two ways. In the short run, the institutions are influenced to revise their policies and the interactions continue. In the long run, social consensus, SC, is formed. This further influences the I and E sets to generate higher levels of interactions between polity and the market/social system. General equilibrium in the market/society set is shown in terms of integration among the socio-economic varables. General equilibrium in the polity set is shown in terms of social consensus. The integrated general equilibrium in the two sets is shown as the General Ethico-Economic Equilibrium System.

Figure 1: The Epistemic-Ontic Circular Causation and Continuity Model of Unified Reality: The World View of Islamic Political Economy.



General Ethico-Economic Equilibrium

Empirical Questions on the Neo-classical Methodology and the Islamic Politico-Economic Alternative: The Case of Muslim Commonwealth of Independent States (CIS).

We will now examine how the Islamic politico-economic perspective of *Shuratic* process can address the developmental issues of the Muslim Commonwealth of Independent States. This particular case study is chosen, because it presents the crossroads of all three prescriptions of global change, namely, the Socialist old guard, the Capitalist new guard, and the Islamic future. This examination of the alternatives is carried out in the context of the blue print of privatization now being launched under the auspices of western development organizations, principally the IMF and the World Bank.

E. Borensztein, in a recent Fund's Paper on Policy Analysis and Assessment of the privatization drive in Eastern European Economies, points out[33] that the cost of privatization, in the face of a 200-300 per cent inflationary run-off and a 20 per cent decline in output in many sectors, calls for extensive reallocation of real and financial resources. Such a resource reallocation is bound to cause immense amounts of private and social costs in the short run, which itself will unleash long term dislocations for the economies under the impact of privatization. The author points out that there are endogenous forces, such as absence of capital markets and of requisite administrative and human resource development, that make the structural transformation under privatization immensely destabilizing. IMF Survey writes,[34] "The move from a centrally planned system to a market economy implies a structural change in production—a massive reallocation of resources. This change, according to Borensztein, 'is initially likely to result in an output decline', mainly because of the asymmetrical speed of response of those activities that are negatively and positively affected by the reform. 'Productive sectors,' Borensztein explains, 'that are not viable under market conditions quickly become financially strapped or face non-existent demand.' In contrast, productive sectors that should expand are reluctant to invest and thus tend to grow slowly, held back by adjustment costs and by uncertainty."

These realities with regards to immense adjustment costs of Eastern European Economies are equally true of the Muslim CIS. They point out the benignity of the neo-classical perceptions behind the privatization drive and of the underlying macroeconomic policies to take account of such disequilibria while prescribing a western model of change that hardly fits in or eases the economic plight. Optimality-equilibrium, substitution and duality between sectors and economic goals become long term methodological disorders of the neo-classical prescription of change.

Let us now take this analysis a step further and view the social costs and dislocations caused by trade-offs under the neoclassical model of economic change in the Muslim CIS. Table 1 shows the extent of trade-off between unemployment, price level and output. Note that these are the aggregate variables that enter as arguments in the macroeconomic version of the social welfare function with neo-classical properties.[35] The severe decline in output, a sharp increase in price level and a general decline in employment, together impoverize social welfare. In the face of this, deteriorating fiscal balance as a percentage of GDP, shown in Table 2, implies that fiscal policies were far from being effective in correcting the socio-economic disequilibrium that has taken place. Furthermore, in the absence of adequate financial institutions and capital makets in the CIS, these countries have become subservient to the monetary policies of the Western bloc, led by its interest rate and exchange rate mechanisms.

Table 1: Socio-Economic Indicators of the Muslim CIS, 1990-91. (Percentage Change)

	Real GDP		*CPI*		*Employment*	
	1990	*1991*	*1990*	*1991*	*1990*	*1991*
Azerbaijan	-11.7	-0.7	7.8	87.3	—	—
Kazakhstan	-1.5	-9.6	4.0	84.0	—	—
Kyrghyztan	4.0	-2.0	3.0	181.0	-0.4	-2.0
Tajikistan	-0.6	-8.7	4.0	103.0	3.0	0.4
Turkmenistan	1.5	-0.6	4.6	90.0	3.4	2.6
Uzbekistan	4.3	-0.9	3.1	82.2	2.8	0.4

Source: IMF Staff Estimates quoted in International Monetary Fund, Washington D.C. April, 1992, Economic Review: Common Issues and Interrepublic Relations in the Former U.S.S.R.

Table 2: Fiscal Policy Indicator for Muslim CIS. (Per cent of GDP)

	Fiscal Balance	
	1991	*1992*
Azerbaijan	-5.2	—
Kazakhstan	-8.0	-3.2
Kyrghyzstan	3.3	-2.5
Tajikistan	3.4	-1.4
Turkmenistan	3.2	-8.0
Uzbekistah	-5.5	—

Source, IMF, op cit.

The study by Borensztein, the evidence of massive trade-offs brought out by the above statistical tables, and the methodological long-run optimal-equilibrium, methodological individualism independence (non-interactivity), substitution-duality perspectives of neo-classical micro- and macro-economic frameworks, all point to the inner de-stabilizing nature of these approaches. Yet at the level of long-run equilibrium, these undercurrents are not reflected as processes in neo-classical methodology. The costs of adjustment remain so large that the long-run optimal-equilibrium state is forever receded, causing thus a quagmire of destabilizing states. These debilities remain intact even in the Walrasian and Leontief type decomposition of production techniques, because of their reliance on the neo-classically induced growth trajectories.[35]

How Can This Polity-Market Interactive Process Apply to the Muslim CIS?

1. Developmental and Institutional Perspectives: Cooperation and Appropriate Technological Change.

On the other hand, the structure of Muslim CIS economies, diversified between a predominantly agricultural and heavily industrialized and resource base, point to a good degree of complementary possibilites between these sectors for inducing economic growth. The fervour of cooperative ventures has also been high, but the cooperative perspective in the Communist regime existed in the absence of markets and in the presence of a great extent of suppressed demand. Thus, the institution of profit sharing among cooperative agents was never looked upon as an important medium of economic activity. On the other hand, profit sharing under economic cooperation (*Muḍarabah*) is a principal institution of Islamic political economy. Its objective in the political economy and social system is to replace the socially depriving role of interest transactions of the Capitalist order on the one hand, and to ethicize a market system of exchange in the midst of interactive sequences of learning-by-doing processes engendered through the joint preferences of polity and market (ecology) on the other hand. The extensive nature of interactive decision making in this framework of profit sharing under economic cooperation subsumes in it questions of participation—a social control of production, appropriate technology, consumption and production of social goods (common goods) and distribution of wealth, income and resources arising from menus of social goods. The history of Islamic legacy and movement in the Muslim CIS is today found to rise up again in its expressions of grassroots patterns of participation. This return to Pan-Islamic calls is meant to comprehend the totality of political, social and economic life.[36]

In recent times, such efforts have been coordinated by grassroots movements in Turkey, which are led by intellectuals, and by the Dar al Arqam grassroots movement in Malaysia. The latter has established exemplary organizations comprehending social and economic activities in the communitarian setting.[37] The Middle East countries along with Iran and Pakistan are also involved in this regenerative process of educating the long oppressed Muslim CIS under Communist rule. The precept of communitarian life among all the Muslim peoples of the various Muslim CIS republics artificially created by the Communists reigns high. This is the idea of the *Millat* or *Shura*, a collective decision making at the most decentralized levels of interest groups in the community, centered around the knowledge-forming experience employing Islamic Laws (*Shari'ah*) to all facets of life and to specific problems as they arise. The basis of Shari'ah must also follow the minimality axiomatic condition of the *Shuratic* Process mentioned earlier.

It is important for the future Islamic transformation of the Muslim CIS to return to the epistemological and organizational roots of Islamic political economy at this juncture of transition. The Communist rule has proved a fiasco; the capitalist transformation process is an early beginning of failure in terms of the instability that market-economic change has brought about in the name of privatization and price liberalization. Above all, the cost of establishing the roots of Islamic change, as opposed to the communist and capitalist ways of thinking and acting at this transitional juncture, would be lower than the heavy costs that have already been engendered. This is so, because an Islamic transformation means Islamizing by epistemological precepts the existing cooperative institutions, focusing on the sectorial interlinkages of the economies and their complementarities provided inter- and intra-republics. The question of capital markets that will both protect the Islamizing Muslim CIS and engender effective profit sharing rather than interest-based transactions, must appear as a most important issue for the CIS. This critical transformation will undoubtedly pose an initial problem in the absence of an Islamic capital market today. But the matter is to be resolved in the context of a massive system of complementary interlinkages in the Islamizing political economy of the Muslim CIS. Interlinkages would be required in such a transformation between the capital markets monetary sector) and the real goods sector, between the various sectors, in intercommuna trade and common socio-economic goals, and among the institutions of development and policy coordination. Effective interlinkages must exist between the institutions of the Muslim CIS and the Islamic Banks in the private sector internationally and with the Islamic Development Bank for economic cooperation with all Muslim countries. Such interlinkages are to be tied in through the knowledge-based process of sharing and learning-by-doing in the premises of Shari'ah governing all transactions and developmental facets of an Islamizing political economy. Thus, inter- and intra-republic interactions as well as global interrelationships form the most extensive interlinkages and complementarity of the Islamic political economy.

In all of these, the primal role of the knowledge-centered learning-by-doing process between the agents of change must prevail. This means the participation in the most extended sense between polity and the market order, revolving around an organistic understanding and application of Shari'ah on all matters of the political economy. Such an interactive process is termed by the author as the *Shuratic* Process, the polity being termed as the *Shura*, and is treated as an extensively embryonic and pervasive institution and precept in all affairs of life.[38] Thus, the systemic understanding and application of Shari'ah to various facets of Islamic thought and life form the evolutionary epistemology of the Islamicizing process. The *Shuratic* Process is seen to be equivalent to the epistemic-ontic circular causation and continuity model of unified reality, exercizing the broadest limits of the Principle of Universal Complementarity, with its specific application now being to the Islamic political economy.

The evolutionary epistemology of the *Shuratic* Process with respect to the central issue of capital market transformation, that is the transition from interest-based transactions to a profit-sharing system, may be interpreted in either of the following ways: There could be an immediate replacement of all interest transactions by joint ventures, equity participation, foreign trade financing, and profit sharing. This is the example of post-Islamic Revolution Iran. Alternatively, there could be a phased out transformation of this type over a short term. This is the example of Pakistan. In either case, an IMF Occasional Paper finds that no particular instability is caused to the monetary sector.[39]

The conflict between profit sharing and interest transactions is based on the capital depriving nature of interest and the real nature of profit. The difference between these values is the subjective cost (or understatement) of capital, set in or involuntarily forgone by the owner of capital. Since this cost as a surplus (or loss) is speculatively induced into the capitalistic system, therefore, such a system with its economic relations, institutions, policies and individualistic preferences, remains uncertain, unpredictive. This is the intrinsic effect left by the rate of interest across the length and breadth of the capitalistic order. Consequently, an undue subjective cost of capital and resource allocation brings about a leakage in the economy (usually in the form of withdrawal by way of saving), creating thus an inefficient arrangement in the consumption and production menus. Through this inefficient arrangement the depriving and inefficient nature of resource allocation is engendered. It is thus a neoclassical fallacy to claim that the rate of interest serves the function of intertemporal allocative efficiency. The presence of interest in the Captalistic political economy is, therefore, both an inefficient and an unjust institution.[40]

The profit-sharing rate (or the profit rate in the aggregative sense) is bereft of speculative elements and surpluses as a value determined purely in a market system. Besides, the interactive polity-market preferences forming knowledge and social consensus in the *Shuratic* process, ethicizes the market order through the consequential influence of more references. Consequently, although not the classical normal profits because of the profit sharing nature of the Islamic enterprises, yet surpluses in such ethicized markets cannot be high and must be fully (distributive in the presence of participatory ownership. Hence, social justice distributive justice) is attained along with maximal allocation of resources in a spending prone, profit-sharing economy.[41] The presence of profit sharing thus attains simultaneity between economic efficiency (material worth) and distributive justice (moral worth).

2. Policy Coordination on the Basis of the Developmental and Institutional Perspectives: Elimination of Interest and Use of Profit-Sharing in Project Related Ventures with Global Perspectives of Economic Cooperation.

The role of profit sharing in replacing the Capitalist institution of interest for reasons of social justice and economic efficiency can be optimally realized in the presence of the Islamic epistemology of value, price and money. All of these are then institutonalized in the polity-market interactive process in the broadest sense of economic arrangement. The central point to note in all of these is the endogenous nature of ethics in the moral-material simultaneity of all economic activities. Money too is then an endogenous creation of this system, unlike the exogenously supplied money of the capitalist system or the labour theory of value in money in terms of valuation of precious metals in circulation as pronounced by Marxist theory of value.[42]

The endogenous theory of price, value and money in Islamic political economy upholds the epistemological stance that the intrinsic value of all goods is the essence of felicity embodied in them by the primordial order of Divine Creation. This is the root of the social nature that all 'goods' commonly share. Any item that does not promote this intrinsic felicity-value is not to be consumed, produced and distributed in the Islamic political economy. The injunction in this regard is formed through the knowledge induction of the *Shuratic* Process, not through coercion. It is because of the existence of this intrinsically endogenous felicity-value that deprivation, excess and subjectivity cannot constitute part of value and price.

Rather, with the increased realization of this intrinsic value of felicity in the polity-market interactions the above-mentioned disvalues are reduced.

The total value, $V_T(F)$, in market transactions can now be written as the sum of value produced by social welfare, $V_S(F)$ and value produced by economic welfare, $V_E(F)$. Both of these depend upon the common endogenous premise of felicity F. Thus, $V_T(F)=V_S(F)+V_E(F)$. The Principle of Universal Complementarity between economic efficiency and social justice implies that all of these values must increase together. Thus fundamentally, the knowledge for realizing the felicity-value must be enhanced in the *Shuratic* Process.

In either the Capitalist or Socialist theories, F does not appear. It is replaced by the reductionism of the material order. Hence, the material essence, M, replaces F. Then, $V_S(M)$ and $V_E(M)$ exist in a trade-off in the relation, $V_T(M)=V_E(M)+V_E(M)$. In the Capitalist order, $V_T(M)$ denotes exchange value with its subjective nature. In the Socialist order, $V_T(M)$ denotes use-value, say $V_T'(M)$.

Now, $V_T(M(F))-V_T(M)=[V_S(M(F))-V_S(M)]+[V_E(M(F))-V_E(M)] >0$, because of the increasing returns to knowledge, $V_S(M(F))>V_S(M)$, Here, if we write $V_S(M(F))-V_S(M)=\alpha > 0$, then by differentiating we write, $(dV_S/dM)(dM/dF - 1)=0$. Thus, if $dV_S/dM=0$, then, V_S=constant. Otherwise, if $dM/dF - 1=0$, then dM/dF=constant. Hence, $M=\beta.F$, $\beta>0$. that is ethicized market values increase linearly with felicity values. This shows the increasing values of moral-material driven ethicized social-processes over the constancy of the ethically-neutral social process. Furthermore, by complementarity between social and economic values in the Islamic order and adopting the above differential approach, we obtain $V_E(M(F))>V_E(M)$ as F increases. This is realized by significant increases in the social values, carrying along with them the economic values as denoted by the simultaneity of moral-material worth, $M(F)$, in the above expressions.

With the above conditions we deduce that $dV_T(F)/dF=dV_S(F)/dF + dV_E(F)/dF > 0$. This is so because, by the result, $dV_S(M(F))/dM(F) =(dV_S(M(F))/dF)\ (dF/dM(F)) > 0$, since, $dM(F/dF>0$, therefore, $dV_S(M(F))/dF > 0$. Likewise, $dV_E(M(F))/dF>0$. Hence, $V_T(F)$ increases (or decreases) a $V_S(F)$ and $V_E(F)$ increase or decrease simultaneously.

Hence, with this higher total value of goods in the Islamic order, the element of deprivation, uncertainty, speculation and excess are reduced over the Capitalist and Socialist systems, by the inversion of relations between value and disvalues. Consequently, prices must be relatively lower and more stable in the Islamic political economy, the higher is the total value based on the felicity of the moral-material worth. In the monetary system, this relation means that interest rate, which is an excess and speculative measure, is a disvalue and must be eliminated to yield economic stabilization. It also means that profits (hence profit rates) cannot be extraordinary surpluses. The economic arrangement and the nature of institutional and sectorial interlinkages and cooperative mechanism all cause such a regime to exist.

In the limit, when interest rate is totally eliminated by this process of knowledge induction, then the quantity of money in the economy will be fully determined by the price of the goods. Hence, money too is determined by the moral-material worth of economic transactions and is thus an endogenous aggregate. Money creation must then mean a flow of currency necessary to monetize the value of goods in circulation. This is the concept of the endogenous theory of money, which plays a distinctive and central role in the Islamic political economy.[43]

The above theorizing in value, price and money also points out that there is an inherent excess pricing in the capitalist and socialist economies. This arises from the effect of value difference on the prices through their inverse relationship. Thus, there is an inherent level of deprivation in these economies as well, for now the excess price (either as price of a good, interest rate, wage rate, or rent) is either taken by the capitalist or by labour in the socialist system. None of these is legitimated under the same principle of eliminating deprivation, excess, speculation and uncertainty and their inverse relationship with the intrinsic felicity-value in all goods primodially created by Divine Providence.

CONCLUSION.

The political economy of the embryonic *Shuratic* Process as a proper and more substantive characterization of the field of Islamic investigation on economic, social and political matters is distinct in its world view and methodology from the constrained economistic theorizing of mainstream economics. Most notable in this category is the neo-classical school and its multifaceted leaning in other areas of economic doctrines. The *Shuratic* Process nature of Islamic political economy is rich in its empirical and quantitative policy-theoretic content, unlike the interaction-benign methodology of neo-classical economics. This is why, as we have shown analytically and factually with respect to East European and Muslim CIS economic transformation, the neo-classical economic and macro-economic approaches cannot explain the process of change while providing an optimal-equilibrium blueprint of long-run expected adjustment without consideration of the greater embedded social order.[44]

The Islamic political economy—not the neo-classical treatment of

Islamic 'economics'—on the other hand, is embedded in the complex of interrelationships that form the socio-scientific reality realized in the midst of the Principle of Universal Complementary in moral-material simultaneity. We now complete the cycle to our original question posed in this paper: A neo-classical treatment of Islamic investigation of economic matters poses a warning to Islamic scholars. In such a mold of thought, no new contributions can be made of the substantively epistemological *praxis* of Islamic socio-scientific order.[45] The consequence will be either a pitiful methodological nicety without meaningful content; or it will be a defeative scientific, empirical and institutional development in the framework of 'Islamic economics', a petrified scientific pursuit that will be unable to touch with and address the question of the human predicament, transform the Ummah in body and spirit, and attain its own distinctive model.[46] In this regard, the Qur'an points out, "Thus have We made of you an Ummah justly balanced, that you might be witnesses over mankind." [47]

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ALTRUISM IN THE CONDUCT OF THE PRIVATE AND PUBLIC SECTORS

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ABSTRACT

ALTRUISM IN THE CONDUCT OF THE PRIVATE AND PUBLIC SECTORS*

The role of private and public sectors in economic development within an Islamic perspective is founded on its own behavioral norms, precepts and institutions. Conventional wisdom holds that such a system cannot be expected to serve as a driving force for modern economic development. But the failure of the traditional approaches to economic development in Muslim countries and elsewhere in the world is evident from the mass poverty and the indispensability of hunger and affluence in many less developed countries. This paper argues that altruism can be regarded as a substitution or an alternative for the innate selfishness foundation of human economic nature. Consequently, this paper focuses on whether the altruistic behavior can be generated as a common and practical reality in today's societies or is a mix of benevolence and selfishness a necessary requirement for economic motivation? Second, does the institutionalization of altruism affect the working of free markets, and hence, what effect, if any, such institutionalization have on identifying, as well as defining, the role of the private and public sectors in economic development in an Islamic perspective? i.e., Can the common good be a constraint on the destructive pursuit of private goods to the degree that the common good involves the consideration of goods for many people, so that it introduces altruism in behavior or pursuit of private goods?

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I. INTRODUCTION

It is widely known that any effort in the direction of a genuine, persistent and consistent economic development must not overlook the structural, social and behavioral changes that must precede the process of economic development as well as the subsequent changes that accompany it or result from it.

Economists have not placed much emphasis on the role of morals and altruistic behavior in the economic development process since the discipline had become a value-neutral empirical social science. Only recently has there been a growing interest in the evolution of integrating morality within economics. Hayek pointed out that the market is not merely an allocative mechanism, but is a spontaneous arrangement and an institution for the best utilization of the scattered knowledge of a society. In a free market economy, competition is, however, the most effective discovery procedure.[1] Hayek never specifies a set of moral rules. He only points out the importance of private property, of honesty and of the family. By and large, he warns us against intellectual arrogance and rationalist fallacies. In Hayek's words, "I believe that I obey reason if I submit to traditional rules which I cannot rationally justify as long as I have, in the particular case, no strong rational grounds to the contrary."[2]

Hayek did not restrict his view to a particular moral system. His view is addressed to the rational man and is neutral with regard to religious beliefs. On that *Nienhaus* calls on Western and Muslim scientists to collaborate in research, particularly with respect to the rising Islamic economics.[3]

Our contention is that the treatment of altruistic behavior is not only that it can be fit into the framework of mainstream economic theory, but it ranks in an institutional setting along side the other necessities of human economic behavior. We argue that all economists should be concerned with issues relating moral values and altruistic behaviors to economics. One might argue that the producers of the private sector will not introduce shoddiness in their output or charge a higher price, because they know they will be punished in the market place in the long run. Hence, much of the morality claimed for the free market system is based on fear of detection.

However, there is a higher level of morality that goes beyond the fear of detection. The person having this level of morality engages in actions without expecting any immediate reward or return. This level of morality is not rare, rather it would be very much observable in all its practicality in the Islamic institutional arrangements. Consequently, such a 'moral system' would diminish the costs to the public sector associated with monitoring the immoral dealings of the private sector considerably. In essence, the Islamic economic system, along with Christianity and Judaism, is embodied with ethical values which are reflected by a change in behavioral norms of all its economic agents. This in turn creates the proper incentives for perfecting the free market mechanism.

In any economic market system there is near unanimous agreement that the government ought to do something to alleviate poverty that oppresses some segments of the population. One remedy to this serious problem is private charitable contributions. However, such action is not without drawbacks, since it aggravates the free-rider problem. According to Friedman:

> It can be argued that private charity is insufficient because the benefits from it accrue to people other than those who make the gifts . . . We might all of us be willing to contribute to the relief of poverty, provided every one else did. We might not be willing to contribute the same amount without such assurance.[4]

Based on his argument, Friedman justifies government action for the purpose of alleviating poverty. Because of the free-rider problem associated with uncoordinated private charitable contributions, Hochman and Rodgers propose governmental intervention by imposing compulsory transfers of income through the tax system.[5]

This paper argues that the key foundation of the development process in an Islamic prospective is the behavior of the altruistic rational man seeking satisfaction and pleasure of this world as well as felicity in the hereafter. Finally, this paper proposes that an economic development system cannot be established without supporting institutional arrangements. We argue that the *zakah* institution reflects the bulk of the altruistic attitude as well as playing an incentive and indispensable role in the economic development process.[6]

II. Economics of Altruism

The economic concern about non-selfish behavior, known as 'altruism" or "philanthropy," has been debated by Hume, Smith, Edgeworth, Marshall, and scores of others. It received mention in Collard's "Altruism and

Economy" (1978), and Becker's "The Economic Approach to Human Behavior" (1980)[7]. These treatises raise not only technical difficulties but also fundamental questions of the nature of man and the possibility of economic justice. By arguing that philanthropic activities yield utility, these authors have rendered such behavior susceptible to the traditional tools of economic analysis. Benevolence represents a special case of the general theory of consumer choice posing no formidable challenge to the basic theory.

The question we raise is how this altruistic behavior can be approached within the notion of the rational, self-interested individual (which proved too potent in analyzing economic behavior)? That is, can altruistic behavior be fit into some version of the economist's beloved model of utility maximization subject to constraints?

Almost no economist would deny the possibility of including altruistic behavior in a model with rational choice. Indeed, in recent years, efforts to incorporate altruistic preferences within the conventional framework have been fairly common.[8] This does not imply, however, that any serious effort has made to integrate an explicit treatment of altruism into the main body of economic theory.

As far as our objective is concerned, we attempt to trace the motives underlying philanthropic behavior under the guidance of the Qur'an and Sunnah, which indeed supports the treatment of such behavior under the conventional framework. We also hope to prove that such behavior is indeed the day-by-day behavior of the homo-Islamicus who aims at promoting economic welfare and development so that everyone can be made better off.

III. Characteristics of Altruistic Behavior in Islam

A survey of the Qur'an and Sunnah provides us with a body of verses and texts which ordains and motivates Muslims to charitable effort (be it material or work effort). This type of spending means, in general, the use of one's material sources, in the form of transfer to individuals or organizations, for purposes that do not result in any personal gain to the donor except satisfaction derived from the feeling that one pleases God. This spending may be obligatory or voluntary. *Zakah* (net worth tax) is the major kind of obligatory contribution from the "haves to the have nots".

On the other hand, the Qur'an is more explicit about such behavior in terms of the quantity and quality of such contributions:

> "Oh you who believe, give of the good things which you have [honourably] earned and the goods of the earth which we have produced for you, and do not even attempt to give to others that

which is undesirable to you, which you yourself would not receive except with disdain."[9]

Another striking characteristic about spending for the sake of God or making altruistic contributions is that they are metaphorically considered as a good loan. There are six verses in the Qur'an that use the terms "loan" or "lend" in reference to all charitable contributions in all forms[10], as well as spelling out the expected returns with which the donor should be rewarded.

On the other hand, Muslim Jurists have unanimously held that catering to the welfare of the people and relieving them from hardships is the basic objective of the Shariah, and hence of the Islamic State. The evidence in the Qur'an and Sunnah and the writings of Islamic scholars for welfare in the Islamic State is so overwhelming that it would be absolutely justified to term the Islamic State as a "Welfare State."

Although it is essentially the responsibility of the individual to work for his own needs, market forces may not always be conducive to such a state. And even if the individual does his best, it is a well recognized fact that the operation of market forces may not always reward him/her optimally for his/her socially productive effort.

Thus it may be emphasized that charitable contributions, whether obligatory or voluntary, carry a social economic responsibility which should be fulfilled and that goes beyond altruistic behavior and should be looked upon as a day-by-day behavior of a Muslim aiming at promoting economic well-being.

IV. The Optimization Process

The altruistic economic agent is motivated solely by his moral duty in his charitable contributions. All other motivations behind apparently altruistic behavior negate its reality. We may group all these motivations in what is known as "reciprocal altruism." That is, a person helps others in the expectation or hope that he will be helped by them in the future.

In order to portray the behavior of an individual within this altruistic environment, we propose the following assumptions:

1. Some individuals with zakatable incomes are eager to give away the prescribed *zakah.*
2. All charitable contributions are quantifiable, that is assuming the existence of an institution for *zakah* collection.

In our model, the potential donor chooses between his/her own consumption and his/her donation to others, subject to his/her budget constraint, i.e., the utility function is defined over the individual's own consumption as well as his/her contribution to others.

For the sake of simplicity, we assume two individuals (A) and (B) that consume a single aggregate market good and service (G).

Assuming individual A's income is higher than individual B's income, A's income is zakatable, and he can give away the prescribed *zakah* amount, whereas individual B's income is non-zakatable and is the recipient of A's donation. Then the utility function (U_a) of the spender can be written as:

$$U^a = U^a(G^a, G^b) \tag{1}$$

Where:

U_a is individual A's utility
G_a is individual A's own consumption of the single good G
G_b is individual B's own consumption of the single good G

The budget constraint of individual A can be written as:

$$PG^a + S^a = Y^a \tag{2}$$

Where:

Y^a is individual A's income
S^a is the amount of *zakah* to be given away.

If the amount received by individual B equals the amount given by individual A, dollar for dollar, then the individual B's budget constraint can be written as:

$$PG^b = Y^b + S^a \tag{3}$$

Where Y^b is individual B's income.

The basic budget constraint of individual A can be written as:

$$PG^a + PG^b = Y^a - S^a + Y^b + S^a \tag{4}$$
$$PG^a + PG^b = Y^a + Y^b = C^m$$

Where C^m can be defined as the "social income" of individual A since it includes the income of individual B, whose consumption is shown in A's utility funciton as a variable. The philanthropic transfer from individual A to individual B is defined in one way flow in the sense that it is based upon no donor expectation that an economic quid pro quo will reward his act.[11]

If $\frac{\partial U^a}{\partial G^b} > 0$, we state that individual A manifests his/her philanthropic taste pattern with respect to individual B. Since A enjoys a greater level of satisfaction when individual B is better off, we can safely express that it is clearly rational for individual A to enhance B's welfare through this philanthropic act. Thus, individual A maximizes his utility U^a (G^a, G^b) subject to the budget constraint.

Forming the Legraugian function and derivation of the first order conditions yields:

$$L = U^a(G^a, G^b) - \lambda(PG^a + PG^b - C^m) \tag{5}$$

$$\frac{\partial L}{\partial G^a} = \frac{\partial U^a}{\partial G^a} - \lambda P = 0 \tag{6}$$

$$\frac{\partial L}{\partial G^b} = \frac{\partial U^a}{\partial G^b} - \lambda P = 0 \tag{7}$$

and

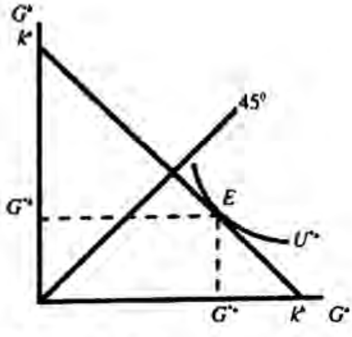
$$\frac{\partial L}{\partial \lambda} = -(PG^a + PG^b - C^m) = 0 \tag{8}$$

dividing equation (6) by 7 yields:

$$\frac{\partial U^a}{\partial G^a} = \frac{\partial U^a}{\partial G^b} = 1 \tag{9}$$

Expression (9) gives the marginal rate of substitution between A's own consumption and his/her contribution to B in the form of *zakah*. This MRS is equal to 1. This is our equilibrium condition for the maximization problem[12]. It states that the donation from individual A to individual B would be just enough so that his satisfaction or utility is the same whether the increase in his utility is due to his own consumption or due to the increase in the consumption of individual B.

A geometric illustration of individual A's equilibrium can be shown in the following diagram.



The above diagram represents the choice between private goods and *zakat* contributions where U^{a*} is the highest indifference curve which individual A can reach. Point E represents the distribution which would maximize individual A's utility. It is attained when individual A consumes G^{a*} and donates $K^{a} - G^{a}$ to individual B in the form of *zaiah*. At the left of point E, as we approach the 450-line (the line of equal distribution at which A's consumption equals B's consumption), we might be reaching points where $\dfrac{\partial U^{a}}{\partial U^{b}}$ becomes zero or negative, which suggests discriminatory attitude.[13]

In the next section, we attempt to analyze altruism within a welfare context.

V. The Social Welfare Function[14]

Several writers in the field of public finance stated that an equilibrium exists under utility interdependence. McKenzie[15], has demonstrated the existence of competitive equilibrium with consumption externalities. Arrow and Hahn[16] allow all the normal assumptions to hold, viz., transitivity, convexity, continuity, semi-strict convexity and non-satiation. The difference is that private preferences $U^{p}(G^{p})$ are everywhere replaced by social preferences $U^{p}(G^{p},W^{*})$, where W^{*} is a consumption allocation across the whole economy. But what happens to the basic proposition of welfare economics when consumption externalities are introduced? The postulates are[17]:

1. Every competitive equilibrium is Pareto optimum.
2. Every Pareto optimum may be supported by a competitive equilibrium and involuntary transfers.

The second proposition is of considerable interest in our welfare function, as Pareto-optimal points could equally well be sustained by centrally controlled prices and enforcing the obligatory duty of *zakah* to be collected. Winter argued that the first theorem would fail to hold whenever optimality required voluntary transfers. On the other hand Winter points out regarding the second theorem that

> The amended theorem points out the fact that there is more scope for reliance on the price mechanism in a community of goodwill than in a community of ill will provided that the goodwill is accompanied by respect for each other's tastes.[18]

Mathematically, we can proceed as follows. Having two individuals A and B, and two goods, X and Y, the externality is presented in the sense that individual B's utility is a function of his own consumption of X and Y as well as the consumption of individual A. Then A's utility function and B's utility function can respectively be written as:

$$U^a = U^a(X^a, Y^a) \quad (10)$$

$$U^b = U^b(X^b, Y^b, X^a, Y^a,) \quad (11)$$

Where

$$U^b = \overline{U}^b$$

Now the maximization problem is to maximize (1) subject to (2) and the following constraint:

$$F(X^a + X^b, Y^a + Y^b) = 0 \quad (12)$$

The Lagrangian function can be formulated as follows:

$$L = U^a(X^a, Y^a) + \lambda_1[U^b(X^b, Y^b, X^a, Y^a - \overline{U}^b] + \lambda_2 F(X^a + X^b, Y^a + Y^b) \quad (13)$$

Deriving first order conditions yields:

$$\frac{\partial L}{\partial X^a} = U^a_{x^a} + \lambda_1 U^b_{x^a} + \lambda_2 F_x = 0 \quad (14)$$

$$\frac{\partial L}{\partial Y^a} = U^a_{y^a} + \lambda_1 U^b_{y^a} + \lambda_2 F_y = 0 \quad (15)$$

$$\frac{\partial L}{\partial X^b} = \lambda_1 U^b_{x^b} + \lambda_2 F_x = 0 \quad (16)$$

$$\frac{\partial L}{\partial Y^b} = \lambda_1 U^b_{y^b} + \lambda_2 F_y = 0 \tag{17}$$

Where

$$U^a_{x^a} = \frac{\partial U^a}{\partial X^a}\ ,\ U^b_{x^b} = \frac{\partial U^a}{\partial X^b}$$

$$U^b_{x^a} = \frac{\partial U^b}{\partial X^a}\ ,\ U^b_{y^a} = \frac{\partial U^b}{\partial Y^a}$$

$$F_x = \frac{\partial F}{\partial (X^a + X^b)}$$

and $$F_Y = \frac{\partial F}{\partial (Y^a + Y^b)}$$

setting (16)/(17) yields:

$$\frac{U^b_{Y^b}}{U^b_{X^b}} = \frac{F_Y}{F_X} \tag{18}$$

With respect to individual B, equation (18) states that the marginal rate of substitution between the two goods equals the marginal rate of transformation between them. The normal Pareto optimal condition is satisfied with respect to individual B via the sole mechanism of the market. How about individual A?

From equations (14) and (15) we get:

$$\frac{U^a_{Y^a}}{U^a_{X^a}} = \frac{(\lambda_1 U^b_{Y^a} + \lambda_2 F_Y)}{(\lambda_1 U^b_{X^a} + \lambda_2 F_X)} \tag{19}$$

and

$$\frac{U^a_{Y^a}}{U^a_{X^a}} = \frac{\lambda_2 F_Y [(\lambda_1 U^b_{Y^a} / \lambda_2 F_Y) + 1]}{\lambda_2 F_X [(\lambda_1 U^b_{X^a} / \lambda_2 F_X) + 1]} \tag{20}$$

From (16) and (17) we get

$$U^b_{X^b} = \frac{-\lambda_2}{\lambda_1} F_X \tag{21}$$

$$U^b_{Y^b} = \frac{-\lambda_2}{\lambda_1} F_Y \tag{22}$$

After substitution of (21) and (22) in (20) and after manipulation we get

$$\frac{U^a_{Y^a}}{U^a_{X^a}} = \frac{F_Y}{F_X}\alpha = \frac{1-(U^b_{Y^a}/U^b_{Y^b})F_Y}{1-(U^b_{X^a}/U^b_{X^b})F_X} \tag{23}$$

$$\alpha = \frac{1-(U^b_{Y^a}/U^b_{Y^b})}{1-(U^b_{X^a}/U^b_{X^b})}$$

If we consider externality occurring with one consumption good, say good Y, then $U^b_{X^a} = 0$, that is, good X is not subject to externality, then:

$$\alpha = 1 - \frac{U^b_{Y^a}}{U^b_{Y^b}}$$

since by assumption $U^b_{X^b} > 0$, then the following different cases arise.

Case 1: If $U^b_{Y^a} < 0$ this is the case of envy manifested by individual B towards individual A. In this case $\alpha > 1$.

Case 2: If $U^b_{Y^a} = 0$, this yields the conventional case of utility interdependence where $\alpha > 1$ with the satisfaction of Pareto optimality condition with respect to individual A.

Case 3: If $U^b_{Y^a} > 0$, this is the point of our concern because of the altruistic behavior manifested by individual B.

Also the sign of α depends on whether the MRS of Y^a for Y^b of individual B is equal to, greater than, or less, than 1. Then α is equal to, less than, or greater than zero respectively.

In the case where $\alpha > 1$, Pareto optimality may be achieved by imposing a Zakat rate on individual A such that at equilibrium the *zakah* rate is $\alpha - 1$. Whereas in the case where $\alpha > 0$, the imposed *zakah* rate should be equal to α in order to fulfill the Pareto optimality condition with respect to individual a.

It seems that market exchange has failed to create or even approach the ethical values of altruism or benevolence. As morality shrinks, legislation expands. Consequently it is left to the public sector and, hence, its legislation or regulation to prevent frictions and conflicts. But in a market setting, the reinforcement of market exchange with the individual's conviction of religious values can bring about a greater improvement in the economic welfare of the society and, hence, of the development process for the economy as a whole.

VI. Zakah As a Public Good and the Free Rider Problem

Recent theories of public finance place particular emphasis on the equity implications of its policy tools. While designing the fiscal policy in a country, special emphasis is given to the "norms" of taxation. However, the success of fiscal policy is largely judged on the basis of adherence to these norms.

A tax system is a wide forum within which ethical as well as economic values are expressed. In other words, what is at issue is more than just economics, but a reflection of how these ethical values are intermingled with the process of consumption, production and distribution to characterize a socio-economic order.

Two general principles of taxation have gained remarkably widespread acceptance in economic thought. Taxes are considered fair if they are related to the benefits-received principle or if they are closely related to each person's ability to pay. However, the benefit-received principle of taxation is meant to apply to all resources using public expenditures. It is based on the following argument: the public sector is engaged in allocational activities only because one of the technical assumptions underlying a well functioning market system fails to hold, and the competitive market system is signaling an incorrect allocation of resources. Since the government is merely substituting for the competitive market system in these instances, taxes raised to finance these activities should imitate the *quid-pro-quo* aspect of market prices. Competitive markets, in effect, extract payments from consumers and producers reflecting the benefits received from their market transactions. Thus, taxes should reflect the benefit received from government services.

Understanding of the economic rationale behind charitable contributions relies on three main assumptions: (1) publicness, (2) Nash conjectures, and (3) utility maximization. Under the first assumption, charitable contributions are treated as a public good in the Samuelsonian sense[19]. The second assumption asserts that individual contributions are made, given that contributions, from other individuals are taken into consideration. The third assumption asserts that even such acts of benevolence or altruism imply the maximum of utility at which an individual is aiming.

The objective of this exercise is not only to form a normative judgement about the legitimacy of state intervention in coordinating charitable contributions, but the aim is to illustrate how Islam institutionalizes such behavior. The analysis portrays the altruistic behavior of a Muslim which has been dictated by the *zakah* institution. To do so, assumptions one and three are maintained while assumption two is dropped for the following reasons:

Zakah could be considered as a public good for the reasons that it is institutionalized by the state and it is the duty of the state to collect it and distribute it. Such inherent acts of altruism in zakah will create a need for socially cooperative action. Also, for altruism to be effective, it would have to be strengthened by institutional structure.

Assumption two is dropped because the free-rider problem is absent in the case of zakah. The individual derives his/her utility from his/her own contribution rather than the level of total charitable donations. Regardless of the behavior of others, the Muslim ought to pay his/her *zakah* dues as long as he/she reaches the prescribed minimum. Therefore, the under-provision of charitable contributions is not entailed.

VII. Conclusion

The social preference ordering of "homo-Islamicos" that evolves at the ethical level and culminates, thereafter, at the societal ethical level makes possible the study of Islamic economics in terms of a new approach to social welfare analysis. The social welfare function has a primordial role to play in Islamic economic development. Individual freedom—though of considerable significance—is not independent of the social consequences. It is sacred only as long as it does not conflict with the larger interest or the overall spiritual or material goals of the society as a whole. The Islamic welfare function sheds considerable light on the proper relationship between Islamic Economics and Jurisprudence. This suggests that only where ethical economic relationships are first formed and progressively reinforced at the microeconomic level, can the state, thereafter, promote the ethical economic foundation of an Islamic state. It calls first for the development of the individual, which progressively culminates into a social order. That is the meaning of the Quranic verse; "Verily, God does not change the state of a people until they change themselves inwardly."[20]

NOTES

1. See Hayek, *Altruism and Economy* (Oxford: Martin Robertson, 1968).
2. Hayek, "*Competition as Discovery Procedure*" (Nishiyama, Leobe: (1984), 254-265.
3. It should be noted here that very few academic Western economists are interested in the subject matter. However, Western banks have been very active in conducting research in the area of Islamic banking.
4. Friedman M. *Capitalism and Freedom* 1962.
5. H. M. Hochman and J. D. Rogers, "Pareto Optimal Redistribution," *American Economic Review* 59, 542-557.
6. Zakah in Qur'anic terminology means a compulsary payment by the wealthy to the econmically underprivileged. It is earmarked to be distributed on specific groups (Qur'an 9:60) Also, it should be noted here that Zakah is a campulsary payment only on Muslim members of the state, and there is no *quid pro qoo* attached to it.
7. See D. Collard, *Altruism and Economy* (Oxford: Martin Robertson, 1978) and Gary S.Bucker *The Economic Approach to Human Behavior* (Chicago: The University of Chicago Press, 1980)
8. See, for example Collard (1978 Becker (1980), and Sugden (1982).
9. Qur'an, 2:267.
10. Qur'an, 2:245, 5:11, 5:12, 57:18, 64:17, and 73:20.
11. The inclusion of Xb in individual A's utility implies that the latter's utility is not isolated from individual B.
12. The constraint slope (-1) of this budget line implies that the relative price of a charitable contribution does not change the quantity as the quantity donated changes. However, this simplified formulation is unrealistic in a world where charitable donations are tax deductible, because the slope will be different in such a case.
13. It is often argued that because of the free-rider problem, private philanthropy will be unable to supply charitable activities in economically efficient quantities. However, since the introduction of Zakah where the principal of practical morality is legislated, the free-rider problem may be diminished, and the supply of such contribution may fulfill the demand.
14. The development of the social welfare functions is traced back to Bergson who first used it and was then developed by Samuelson. Their work expresses social welfare judgments that are in fact neutral with respect to many of the alternatives possible interpretations, particularly the controversial issues of ethics and epistemology. For a more complete discussion, see J. T. Laffont and G. Laroque, "Effects of Extemes et Theories D'eavilibre General" *Cahiers du Seminairs D'Econometrique*, 24.
15. no reference in Bibliog.
16. no reference in Bibliog.
17. See S. J. Winter "A Simple Remark on the Second Optional Theorem of Welfare Economics" *Journal of Economic Theory* (1969) 99-103.
18. Ibid., p. 100.
19. The same procedure can be undertaken when externality in consumption occurs with respect to the two goods.
20. Qur'an 13:11.

The Role of Public and Private Sectors in Economic Development in an Islamic Perspective

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The thesis of this paper is to show that Islam encourages individual initiative, promotion of entrepreneurial spirit of achievement, and private enterprise. It does not allow a reliance on a large public sector for economic development. Arguments in support of this position will be developed in the following four steps:

I. Review of existing opinions of Muslim scholars

II. The current state of affairs in Muslim countries which have relied on a large public sector for economic development

III. A discussion of how Islam views this subject

IV. Identification of the proper role of public sector in economic growth

The discussion will lead to the conclusion that within the Islamic perspective, the role of the public sector should be confined to only those economic activities which are either:

1) Inaccessible or unmanageable by the private sector

2) Unprofitable at the initial stages of economic development

3) Unwelcomed by private enterprise due to their defense or strategic significance and strict security requirements

4) unchallenged by other competitors due to their unique economic scale of operation, product or service.

It will be shown that, except for these and other areas of exceptional needs, the rest of the productive activities in the economy should remain under the domain of the private sector. This strategy for complete privatization of the economic activities will accelerate the achievement of both economic efficiency and equity.

I. THE ROLE OF THE STATE AND THE PUBLIC SECTOR—A SURVEY

In his survey of contemporary literature on "Muslim Economic Thinking"[1], Dr. Siddiqi provides a summary of the views of Muslim economists, on the role of the Islamic State in economic affairs. Most of these economists justify an open and unrestrained role for an Islamic Government in the economy. This role includes not only regulation and centrally planned resource allocation, but even coercion.[2] More recently Chapra[3], has espoused a moderate role for the government. Khurshid Ahmad[4] is one of the few scholars who advocates development of free enterprise and privatization as a development strategy for Muslim countries. Our position with regard to the liberalization of economies of the Muslim countries reenforces and further extends his position. In this paper we argue that activities on the part of the government that include modification of resource allocation, arbitrarily designed distribution of income, active regulation, direct intervention and participation, redistribution of employment among industries not on an occasional or temporary basis, but on a permanent and stable basis as a planner and producer, cannot be justified either on economic or on Islamic grounds for the following reasons:

It is clear that assignment of these activities to a government agency, purely on the assumption that the government can do a better job reflects more a value judgement than an analytic and realistic economic assessment of the situation.

What one needs is an analysis of the causes and the cures of the economic maladies that some of these authors have observed in their own countries within the framework of an interdisciplinary approach. Recent developments in countries that have relied heavily on the public sector provide undisputed evidence that this strategy has caused economic bankruptcies in these countries. It is true that the free enterprise system although greatly efficient, is found to be notoriously inadequate in providing an equitable distribution of wealth and income. It is even more apparent that economic systems, which have relied heavily on large public sectors are found woefully deficient in productive efficiency, yet quite successful in reducing the inequality of income. This may explain the reason why some young, social and value oriented economists had been influenced by this approach. All Muslim economists have obviously been troubled with the presence of abject poverty, economic misery, and deprivation of the vast majority of the poor in their own countries. In search for an economic strategy that could provide a solution within the egalitarian philosophy of Islam, it is reasonable to expect that these authors will find support within the framework of a planned economic system. What these authors have overlooked is the fact of economic life which demonstrates that equity and efficiency are competitive, especially in the short run. The policies that might look attractive in providing equity in the short run are often found extremely detrimental to support long term growth of the economy. Let us not forget that communism is dead primarily for its adherence to economic regimentation and socialism obituary is being written. Islam is the wave of the future, not because it asks human beings to transform themselves into angels, but because it recognizes human fallibility and attempts to build a social and economic system on the recognition of both the strengths and weaknesses of human character. Freedom of enterprise and unrestrained economic initiative has, throughout history, built nations economically and has provided a mechanism for its members to acquire food, clothing, and shelter.

Economic theory and history also demonstrate that policies of taxation, appropriation, nationalization, or active participation of a government in productive activity, instead of providing a guaranteed minimum standard, have in fact resulted in reducing economic growth and prosperity for a great majority of the population. Furthermore, even those who have been guaranteed a minimum have often developed a dependent and fatalistic attitude towards their life and destiny. This attitude has prevailed even more widely amongst the majority of the poor in developing countries where the ignorant, the deprived, the landless, and the unskilled majority has accepted economic servitude with the constant reinforcement of this fatalistic attitude. This group does not need government bureaucracy to replace their old landlords and matters. They need to be educated, informed, and provided an opportunity to start businesses on their own. Bangladesh's Bank of Garmin program of small loans provides an excellent example of this strategy.

II. The Current State of Economic Affairs in Muslim Countries

The social, cultural, political, as well as economic environment that currently exists in most of the developing Muslim countries, also provides a strong justification for a smaller public sector. Although the reasons for their malaise in these areas, as well as their moral and ethical morals, are varied and complex, one can still argue that the interference by the public sector in economic life is significantly to blame for undermining the spirit of self reliance and enterprise. The large public sector bureaucracy is contributing to the development of the dependent attitude, especially among those who need it the least. The economic conditions that currently prevail in these countries provide sufficient basis for one to argue that if the role of the public sector is not reduced on grounds of economic efficiency and productivity, these countries will end up prolonging their misery, poverty, and economy stagnation in the long run. Following are some examples of the distortions in economic life that we are all familiar with. These incidents of mismanagement, misallocation of economic resources, wasteful use and exploitation of human and natural resources are an everyday occurrence in most of the developing countries. Some of these examples directly illustrate the inefficiency of a bloated public sector, while others are reflective of the disdain in which public sector enterprises are held by the public, yet others are illustrative of the results of a dependent attitude. This attitude has either been nourished by the landed aristocracy or is being tolerated by public sector bureaucrats. Some of these examples are:

(1) In countries, such as Egypt, where the price of bread used to be subsidized, people were found to be feeding bread to raise chicken.
(2) In Brunei, Indonesia, and Iraq, to name a few countries, scarce public funds and foreign exchange reserves are known to have been used to build mansions for public servants and show off national monuments.
(3) There is such a plethora of laws, rules, regulations, licensing procedures, user's fees, custom duties, and an array of checkups and penalties that a common citizen cannot even breathe without some state agency looking over his shoulders. In order to survive, a citizen tries to get around these stifling and choking chains of restrictions by paying bribes, grafts, and commissions. He is so victimized by the system that he treats these payments as a normal way of doing business.
(4) Since public sector positions carry economic security, guaranteed annual raises, power, and prestige, public servants get used to acting as public masters. Accountability is unheard of. The attitude toward work is leisurely and casual. Public servants either do not do a full day's work or do it half-heartedly. Performance evaluations do not carry proper weight in determining rewards. These are influenced greatly by flattery, family connections, or non-work related performance.
(5) Public sector jobs are sometimes created primarily to provide positions for a family member, friend or relative, rather than to satisfy a genuine public need. This results in a diversion of limited economic resources to feed an unneeded and unproductive worker at a cost to the whole society. A friend of mine once told me of his first assignment as a rural veterinarian in charge of inoculating cattle. Since very few farmers needed this service in that area, his fellow veterinarian advised him to report names from a fictitious list which was previously prepared to report names in fulfillment of everybody's daily performance quota.
(6) A great majority of public servants consider public goods as free goods and use them personally, as well as for the family. They maintain them poorly and shabbily. It is a widespread custom for the entire family to take advantage of all the perks such as medical care, car and housing, because these privileges are treated as a bonus for the entire family.

These are only a few and limited examples of the misuse of public trusts, and consequent misallocation and waste of limited economic resources, that have been widely observed in Egypt, Pakistan, Indonesia, Bangladesh, and a number of Middle Eastern countries. Most of the readers can certainly add a few more items to this list.

It would be a mistake to draw the conclusion that public servants in developing countries are more dishonest than in the developed ones. When resources are limited, even minor acts of transgression sometime have a way of becoming obvious and noteworthy. There is, however, an economic rationale behind the misuse of perks. It can be explained in terms of a price for influence, which we disdainfully call graft or a bribe. Within the framework of value neutral economic theory, the problem can be explained in terms of a monetary premium. This works to equalize the difference between the higher monetary wages for a similarly skilled, educated and trained employee in the private sector and a low paid public servant. In cases where this is not true, the fault still rests squarely on the unneeded public sector and the opportunity that it provides both to the unproductive and the dishonest to engage in such activities. The most efficient economic way to solve this problem is to remove this premium by paying the same wage to similarly trained workers. This can be achieved by reducing the size of the inefficient public sector. Additional punitive laws or an attempt to change the attitude through moral suasion, sermons, or appeals to patriotism will not succeed until a society based on perfect economic justice and morality is established. In the meantime, Islamic society will have to rely on a minimum role in the economic life of its citizens. This will ensure a spirit of independence and self reliance. It is only with their own independent judgement, freedom of action, and free will that each individual can fulfill his role that Islam assigns him as a vicegerent of God[5].

III. PRIVATE VERSUS PUBLIC SECTOR: AN ISLAMIC PERSPECTIVE

Let us now turn to a discussion of the role of the individual and why the effective fulfillment of this role requires a limited public sector. This discussion is based on two premises. The first relates to the role of economic discipline within the broader Islamic perspective. The second identifies the role of the individual in economic life. As far as the role of economic discipline in the life of a Muslim is concerned, all Muslim scholars agree that economic relations and the rules of conduct for an individual, as well as operational strategies for the Islamic economic systems, are derived from the broader moral, social, political and legal framework that Islam prescribes for all Muslims. As for the second premise, which relates to the role of the individual in an Islamic economic order, the vast majority of scholars accept free enterprise as a modus operandi of the Islamic economic system. Most scholars however tend to gravitate to the position that a larger public sector is essential to fulfill the goals of the Islamic economic order and its world view. In the discussion that follows, the role of the individual in Islam will be highlighted, and it will be argued that a smaller, rather than a larger, public sector will facilitate the fulfillment of an individual's role in an Islamic economic environment. The last section will attempt to identify and elaborate on the specific economic areas where the limited public sector can play a productive and efficient role.

The focus of attention in Islam is the individual. It is his salvation that Islam strives for[6]. It is his success that Islam looks for[7]. It is his role in this life that Islam considers vital for the achievement of success here and his eternal bliss in the hereafter[8]. In the Islamic scheme of societal relations, all social, cultural, political, legal and family institutions are established to serve the individual[9]. The major purpose for the creation of everything on this universe is to facilitate man's efforts toward the fulfillment of the purpose of his creation. It is not the society, but the individual that Islam concentrates on. According to one of the most eminent Islamic thinkers of this century, Maulana Maudoodi, the individual is not meant to serve society[10]. It is society which ultimately serves the individual. The paramount position that Islam assigns to the individual can be summarized as follows:

(1) Man is the vicegerent of God on this earth[11].
(2) Man is endowed with free will. He is capable of doing both good and evil on his own volition[12].
(3) Man is completely responsible for all his actions. He is also responsible to make himself aware of the consequences of all his actions[13].
(4) Each person must carry the burden of his deeds. No one else is allowed to suffer the consequences of his transgressions or to intercede on his behalf intercessian is permitted on behalf of sinners by prophets and some pious people to whom Allah grants the privilege[14].
(5) Man alone is accountable for his actions which may have benefitted or harmed him, as well as those actions which may have had an impact on others[15].
(6) The consequences of a man's action and his accountability for their beneficial as well as harmful effects are to follow him in the life hereafter[16].
(7) Transgressions that may have harmed him or his soul, only God

can forgive. Transgressions which may have impacted others, only those who are affected can forgive. He can, however, minimize or reduce this impact and expect complete forgiveness from God if he repents. and helps his fellow beings to lift up from want, misery, deprivation and poverty, as well as spiritually from disbelief, God may forgive him. God will also reward him if he helps his fellow beings with his natural, physical, financial, and intellectual resources and abilities[17].

This profile presents a picture of a man who is the master of his own life and the mover and shaper of his own destiny. These guidelines of character, when applied in economic life, would lead to the emergence of an individual with the following economic behavior:

(1) He is able to distinguish right from wrong, is rational, is able to distinguish less from more, loss from profit, and least from most. He desires to maximize economic outcomes by expending the least amount of effort. However, as a moral and value oriented person, he does not attempt to accomplish this task by stepping on anybody else's toes. He does not exploit, nor does he submit to economic exploitation by others. In pursuing the maximization behavior, he avails himself of the opportunities that enhance his own and his family's welfare without causing any injury to others. He is a value oriented, morally and spiritually guided believer, who tries to maximize his utility by competing or cooperating with others to get what he deserves for his work and natural abilities from his economic environment.

(2) In order to perform his task productively and efficiently, he seeks economic resources. He acquires them from one or more of the following sources: through his earnings, derived on the basis of the quality and quantity of his labor, through his business enterprise and capital gains, or through inheritance, which was passed on to him by his family. It is expected that this was accumulated, by his family through frugal, fair, legal and ethical means. To the extent these means were not used, he subjects his inheritance to extra taxation or even outright appropriation by the state.

Furthermore, since these economic resources can be acquired either in the form of financial assets or nonfinancial, real assets such as land and capital, the society guarantees him the economic power and the freedom to use them as the means of production.

(3) He is a moral and rational person who believes in accounting for

his actions. Therefore, he utilizes these resources to the best of his ability and in the most efficient manner. Even otherwise, for the sake of protecting individual freedom and free enterprise, society does not place any restriction on his actions[18]. His efforts within this ethical economic environment lead him to enjoy the largest possible return for the least amount of his efforts. By following this process, he assures not only the greatest satisfaction for himself, but also creates benefits for the entire society.

Let us now summarize the consequences of the combined actions of all such individuals. It is obvious that the combined actions of all such individuals will result in an economic environment with the following characteristics:

(1) Individuals will rely primarily on the strength of their own character, abilities, skills and resources to fulfill their obligations towards God, to fellow Muslims, to their own selves, to their families and to the community. Indolence, laziness, dependency on others, reliance on charity and the state will be disdained in such an economic environment. Charity will only be used to provide for minimum necessities. Enterprise, endeavor, risk taking, leadership and self sufficiency will be encouraged and promoted.

(2) The state will act as a protector of the community, a facilitator of private enterprise and a provider of last resort. It will assist in creating an economic environment where business will flourish without intimidation or coercion from the power of the strong. In this economy, businesses will earn profits and económic returns not by using misrepresentation, influence peddling, collusions and monopolies, but fairly and openly, on the basis of their strengths, enterprise, ingenuity and efficiency.

(3) The state will guarantee private ownership of the means of production, which will be the norm. Limitations on ownership and its disposition will be an exception, allowed only in national emergencies.

(4) Pursuit of material progress and achievement of prosperity through one's own honest efforts will be treated as a commendable objective.

(5) Achievement of perfection and utmost efficiency in all endeavors, including economic affairs, will be considered an article of faith.

(6) The principle of individual responsibility and accountability for one's own actions and their consequences will be extended to the

field of economic life, which will include markets for various resources. More specifically, in the labor market, an individual will be free to seek work as well as to offer a job at the competitive market wages. In the capital market, he will be free to start a business of his own for profit and to earn unlimited profits if successful or to face bankruptcy if he fails. He will be free to accumulate wealth, use it, dispose of it or inherit it. As a businessman, this individual will be free to charge any price that the market will bear. He can control his costs to as low a level as possible. He will compete as well as cooperate with his business partners. The Islamic state, with its effective enforcement of the laws, will guarantee that businesses are organized and operated within the framework of broader moral and ethical standards of Islam. It will ensure that neither competition nor cooperation is used to provide a business or a special group an economic advantage over all others. The state's role will primarily be seen as a provider of an umbrella of confidence and protection in order for businesses of all sizes to grow without the fear of interference by the state or other private monopolies.

The discussion so far clearly demonstrates that from an economic perspective, the establishment of a large public bureaucracy is not only inefficient and wasteful, it is also inconsistent with the moral and ethical values of Islam. When one tries to evaluate it from the perspective of Islamic history, especially from a review of the life and the times of the Prophet (pbuh), one draws the same conclusion. If public ownership of the means of production or even an active role in areas of production was a desirable economic strategy, the Prophet could have appropriated private lands or businesses in the name of the Islamic state. He could have appointed some of his companions as supervisors and managers, who could have done an exemplary job in the management and operation of various productive activities of the time. These companions were known to be so skillful and adapt in business management that they were often the envy of their friends and foes alike. Since this act could have been unfair, unjustified and completely un-Islamic, the Prophet refrained from taking any such action.

IV. Proper Role for Public Sector

As discussed earlier, the principles of self-reliance, personal initiative-and free enterprise, although paramount principles in the Islamic economic order, do not, however, in any way, completely deny the existence of a public sector. Islam's concern regarding an equitable, just and fair social, economic order does allow for the state's involvement in economic areas where private enterprise fails to enter. The principle that should guide this involvement must be that the amount of social or individual welfare due to public sector participation is greater then any loss in welfare that state's involvement creates. This principle is completely consistent with Islamic philosophy. According to this principle, public sector participation can be justified primarily in those areas where individual businesses are either unwilling or unable to get involved. If they do, there are reasons to believe that their involvement will result in economic inefficiencies, and/or monopolies. A number of reasons explain such noninvolvement. These are:

(1) Existence of a noncompetitive economic environment due to the need for large scale enterprises.

(2) High transportation cost, which might lead to geographic monopolies.

(3) Prevalence of increasing returns to scale in some heavy industries.

(4) Need for pure public goods, such as defense, and protection of natural resources.

(5) Presence of externalities, both positive and negative, which either cannot be promoted or reduced through incentives or taxes.

(6) Existence of incomplete markets in the provision of some service, such as insurance from natural disasters.

(7) Existence of complimentary markets and the failure of individual business owners to engage in the production of all phases of one product or all products that are needed to fulfill a specific need. One example is the development of infrastructure to facilitate economic development. Private entrepreneurs might be willing to build roads, but not bridges. They may not have the resources or may not find it profitable to do so. Also, private entrepreneurs may not be able to charge for a service that everybody might use, such as weather information. In addition, various economic policy measures, such as fiscal, monetary and trade policies might require a neutral public sector agency for their equitable implementation and effective control. Other areas where public sector participation may be necessary are to provide for services, such as making up for a lack of education opportunities, public health, safety, recreation and parks.

In conclusion, the areas specifically mentioned above, as well as some additional important ones, can be summarized in the following four categories. These are the areas where the public sector can play an active role which we believe to be within an Islamic perspective:

(1) Establishing proper laws and creating an atmosphere where the free enterprise system can function efficiently.
(2) Undertaking fiscal, monetary and other economic measures, to ensure a proper environment for economic growth and development.
(3) Providing economic resources and taking action in areas where private enterprise fails to participate.
(4) Recognizing the extent of poverty due to lack of productive job opportunities, and taking measures to reduce unemployment and inequality of incomes without competing with, or interfering in, private sector activity.

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OPERATION OF AN ISLAMIC BANK UNDER CONVENTIONAL BANKING FRAMEWORK: A COMPARATIVE EFFICIENCY ANALYSIS

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ABSTRACT

Islamic Banking is claimed to be superior to its conventional counterpart. But the analytical framework so far used in measuring their relative efficiency was static. The conclusion was that Islamic banking satisfies all of the efficiency conditions while its conventional counterpart doesn't at all. The present study introduces a dynamic analysis to see what happens when Islamic banks operate under a conventional banking framework. The finding is that Islamic banking can not maintain its claimed superior efficiency level due to the fact that conventional bank charges the same rate of interest for projects with varied rates of return. This encourages entrepreneurs with projects having high profitability to switch over from Islamic banking to conventional banking since the former shares a ratio of profit earned by the borrowing entrepeneurs, which means a higher cost of borrowing with the increase in the rate of return.

OPERATION OF AN ISLAMIC BANK UNDER CONVENTIONAL BANKING FRAMEWORK: A COMPARATIVE EFFICIENCY ANALYSIS

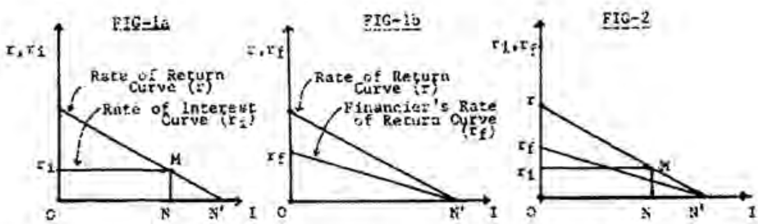
Numerous studies have been conducted to explore the nature and functioning procedures of the Islamic banking system. Most of these studies have attempted to analyse comparative efficiency between an Islamic bank and its conventional counterpart under the assumption of a closed economy. That means the efficiency of an Islamic bank in relation to an interest-based bank is analysed in an environment where only Islamic banks operate.

The present paper attempts to analyse the comparative efficiency of the two banking systems when they are allowed to operate simultaneously in the same economy. Since the interest-based banking system is in operation in almost all countries of the world, we find it easier to conduct our analysis of comparative efficiency of the two in a conventional banking framework. For the purpose of this comparison we would use efficiency criteria that we would call productive, allocative, distributive and stabilization efficiency criteria.

These criteria have been developed in Section 1.[1] Section 2 deals with their application to measure comparative efficiency under static analytical framework. Section 3 then concentrates upon a discussion of comparative efficiency position of the two systems of banking when they operate simultaneously in the same economy. While doing so, this section will try to identify the factors responsible for the change of comparative efficiency position held by the two systems of banking under static analysis. Section 4 concludes the discussion and highlights policy implications.

1. BANKING EFFICIENCY MODEL

The basis of the Banking Efficiency Model developed by Akkas is the conventional Investment Demand curve which explains how investment decision is made by firms or entrepreneurs in an economy. Rate of interest being one of the key factors in the investment decision model, conventional banking appears to be an integral part in the investment decision model intact and extends it to meet the requirement of being a general one incorporating in it investment decision mechanism of Islamic banking. This is illustrated in the following figures. Fig. 1a represents investment decision model under conventional banking system and Fig. 1b represents the same under Islamic banking. The generalized banking decision making process is modeled in Fig. 2 which is derived by superimposing Fig. 1b on the Fig. 1a.



1.1 Investment decision under Conventional Banking

Under the conventional banking framework, as in Fig. 1a, the bank charges a fixed rate of interest (*ri*) to finance only those projects which have rates of return (*r*) greater than or equal to the rate of interest (ri). If the conventional banking mechanism is termed as a Fixed Return Mechanism (FRM), then under FRM an investment decision may be modeled as:

$$I = f\,(ri, r) \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

with $\dfrac{dI}{dri} < 0;\ \dfrac{dI}{dr} > 0$

Where *I* represents level of investment, *ri* the rate of interest and *r* the rate of return from the project. Here $\dfrac{dI}{dri} < 0$ indicates the effect of ri on investment demand, whereas $\dfrac{dI}{dr} > 0$ indicates an increasing level of investment with the rise in the rate of return.[2]

The optimum level of investment will be at the point where the rate of interest equals the rate of profit at point M, as shown in Fig. 1a.

1.2 INVESTMENT DECISION UNDER ISLAMIC BANKING

Under Islamic banking (alternatively known as Profit-Loss Sharing banking), as in Fig. Ib, the bank shares a ratio of profit earned by the investor/borrower rather than a fixed rate of interest on capital borrowed by him.[3] Since profit earned by the investor is not certain, a ratio sharing by the bank provides a variable rate of return. Therefore, the Profit-Loss Sharing mechanism of investment financing is termed as a Variable Return Mechanism (VRM).

Under VRM, financial contract specifies the following returns to the financier (bank) and the investor (borrower) respectively:

r = total rate of return

rf = financier's rate of return $(r-ar)$ . . . . (2)

Assuming linearity in the movement of 'a', the financing and investment decision under VRM is shown in Fig. 1b.[4]

In this figure, the rf curve *meets straight to point N′* where $r = 0$, implying the lender's interest in financing projects having a rate of return greater than or equal to zero. But the bank lends out from deposits received, for which it has to pay a return. Moreover, financing always carries with it some administrative cost. Thus, the minimum cost of borrowing under VRM will be somewhere between the market rate of interest and the zero rate of return (between point M and N′) say M′ as shown in Fig. 3 below. The actual equilibrium point under VRM will depend on two factors: rf and the supply of investment funds.

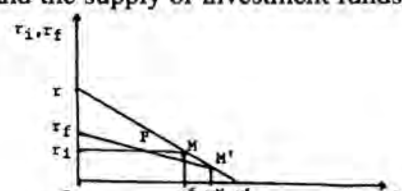


Fig. 3: The Efficiency Model

Fig. 3 provides an opportunity to compare relative efficiency levels of the two banking systems. Four efficiency criteria[5] are introduced here in order to provide common measuring rods against which relative strengths of the above two systems can be determined. These criteria are: a) Productive Efficiency; b) Allocative Efficiency; c) Distributive Efficiency; and d) Stabilization Efficiency. While the first three criteria are very explicit to the efficiency model, the fourth is implicit. Prior to applying these criteria to measure comparative efficiency of the two systems, we would like to define them as follows:

Productive Efficiency: Productive Efficiency of a bank in financing investment implies system capacity of the financing mechanism to utilize maximum possible investment opportunity that usually exists in an economy. Referring to the Fig. 3, a banking system is more productive if it can have the capacity to finance investment to a level approaching closer and closer to N′ level. Moreover, the same banking system is productive if it has built-in arrangements to ensure comparatively better performance of the project financed by it, can ensure timely recovery of the loan and draw maximum profit from it.[6]

Allocative Efficiency: Allocative Efficiency, on the other hand, deals with the maximum best possible utilization of a community's scarce resources. For an investment financing mechanism to be efficient, it must follow two criteria so far as its allocative efficiency is concerned: (a) ordering of ends in terms of decreasing desirability (b) ordering of projects (selected under priority ends) in terms of their profitability.[7] The investment demand schedule or rate of return curve in Fig.3 represents the criterion (b). Thus, among the two banking systems, one which satisfies better the condition (b) (i.e. profitability), can be termed as more efficient.[8]

Distributive Efficiency: A banking system, to be an efficient one, should ensure equitable distribution of risk and return among the three parties involved in the financing process—the depositor, the bank and the borrowing entrepreneur. The Fig. 3 can also explain how incomes generated in the financing process are distributed among the three parties mentioned above, both under Islamic and conventional banking frameworks.

Stabilization Efficiency: Stabilization efficiency of a banking system means how far its financing mechanism is free from contributing to instability in investment i.e, cyclical fluctuations. The spread between cash flows and payment commitments has been considered to be the main internal cause of instability in investment.[9] Cash flows are essentially profits accrued from investment projects, and payment commitments are defined as contractual agreement of the borrowing entrepreneurs on paying interest and principal to the bank. The engulfing difference between the two creates pressure on financing for further investment. But how quickly the gap between the cash flows and payment commitments spreads, depends on the cyclical stage through which the economy is passing. However,what is important here is whether the payment commitment between the bank and the entrepreneur is fixed or inflexible and widens the spread and leads to destabilization of the investment climate. On the other hand, if the financing mechanism has built-in flexibility and is able to establish a direct relation between the cash flows and payment commitments, it can neutralise the pressure on investment climate, and thus, cyclical fluctuations in the economy might be less prominent.

So Fig. 3 incorporates in it two different types of payment commitment, i.e. fixed commitment arising from interest payment under the conventional banking framework, represented by horizontal *ri* curve, and flexible commitment under PLS (Profit-loss sharing) financing under an Islamic banking framework, represented by the downward sloping *rf* curve.

Now Fig. 3, incorporating in it the criteria of productive, allocative, distributive and stabilization efficiency, is in a position to serve as an Efficiency Model against which efficiency of the two systems of banking—conventional and Islamic—can be measured.

2. RELATIVE EFFICIENCY—A PARTIAL ANALYSIS (STATIC MODEL)

In this section, four efficiency criteria of the Efficiency Model have been applied to both FRM and VRM in order to measure their relative efficiency. They are productive efficiency, allocative efficiency, distributive efficiency and stabilization efficiency. These criteria (though not leveled as efficiency criteria) have been used by several Islamic economists to prove the superiority of Islamic banking. The following are the conclusions drawn by them when the comparative efficiency level of the two systems of banking was studied under a static analytical framework.

2.1 Productive efficiency: This concept with its peculiarity has been developed by the present author. Productive efficiency of a bank, according to him, implies system capacity of the financing mechanism to produce maximum possible result from an investment. A bank when financing investment confronts five types of questions in terms of the productivity of its financing mechanism. First, how much the financing mechanism is capable of utilizing investment opportunity waiting to be financed with its scarce investible funds. Secondly, how much the financing mechanism is effective in ensuring desired performance of the projects financed by it. Thirdly, how much is the mechanism capable of ensuring maximum possible timely recovery of loans financed. Fourthly, how much it is capable of securing maximum profit from an investment. Finally, how elastic the system is in providing financial services to the entrepreneurs seeking funds as per their necessity. Thus in order to be productive,the financing mechanism must fulfill the following five efficiency tests:

1. Investment opportunity utilization test
2. Project efficacy test
3. Loan recovery test
4. Profit maximization test

5. Test of elasticity in financing.

In order to test comparative investment opportunity utilization capacity of the FRM and VRM models, we refer to Fig. 3. Here the FRM and VRM models are superimposed for making comparison between the two systems.

Assuming an increase in investment demand and availability of funds, VRM can finance ON^V level of investment, thereby utilizing extra potential investment opportunity of N^FN^V. This can not be done by FRM because it brings down the rate of interest and thereby reduces its average rate of return. The same is possible for the VRM, since it can maintain at least the rate of return (equal to the rate of interest) earned by the FRM by counterbalancing the losses (apparently in comparison to FRM) incurred in the lower profit zone (right of P) by the excess profit earned in the higher profit zone (left of P). Mukherjee[10] reached a similar conclusion from a microeconomic study: that a firm in a Zero Interest Rate Economy can grow faster than in a conventional interest-based economy. The present author has also shown that VRM performs better in the tests of Project Efficacy, Profit Maximization and Loan Recovery. But the efficiency in temporary and short term financing seems to be superior in case of FRM to VRM, since the latter could not yet devise suitable modes in such a type of financing.

2.2 Allocative Efficiency: Siddiqi argues that the VRM satisfies all the welfare conditions, particularly those of the Pareto Optimum, while the FRM doesn't at all. This is because of the fact that VRM, while selecting projects, follows a descending ordering of projects in terms of their profitability, assuming all other necessary conditions have been duly considered.[11] The reasoning is exactly reflected in the downward sloping *rf* curve as shown in Fig. 3.

2.3 Distributive Efficiency: Siddiqi further shows that VRM ensures equitable distribution of income among the participating agents involved in the financing process: the entrepreneurs, the bank and the depositors. This is done by ratio sharing of incomes among the participating factors. That means there exists a direct relationship between the incomes of the entrepreneurs, the banks and of the depositors as evident in Fig. 3 by the proportional relationship between *r* and *rf* schedule. But one can not find any proportionality between the incomes of the entrepreneurs, the bank and the depositors while making transaction with FRN.[12] This is reflected in the Efficiency Model (Fig. 3) by the non-proportional relationship between *r* and *ri* schedule.

2.4 Stabilization Efficiency: Chisti has shown that VRM operates as built-in stabilizer in the cyclical fluctuations of an economy, while the

FRM contains in it the basic source of instability in investment which accelerates cyclical fluctuations.[13] The spread between the cash flows and payment commitments is the source of instability which is considered to be the main internal factor causing cyclical fluctuations.[14] Cash flows being, essentially, profits generated from projects are always uncertain. Thus, it is the nature of payment commitments of the borrowers with the bank which determines the magnitude of the spread.

Since the FRM maintains fixed payment commitments (interest and principal) against uncertain cash flows, the spread widens at different phases of cyclical fluctuations. But in the case of VRM, the payment commitments having been directly related to cash flows of the financed project, there is nothing found to be destabilizing/aggravating to the cyclical process. In other words, volume of payment commitments varies with the variations in cash flows. Moreover, even if cash flows is greatly affected by losses in the financed projects, the spread remains in its previous position due to sharing of losses by the financiers in proportion to their capital contribution.[15]

3. RELATIVE EFFICIENCY-AN AGGREGATE ANALYSIS (DYNAMIC MODEL):

Efficiency analysis under a static analytical framework shows that VRM satisfies all the efficiency conditions and, hence, is found to be superior to FRM. But the superiority is, however, lost if the analysis is made in a dynamic frame of reference. That means if conventional and Islamic banks operate simultaneously in the same economy or one or a few Islamic banks start operation under the conventional banking framework, the shape of the static model is modified, and their relative efficiency positions are changed.

The discussion that follows aims at measuring comparative efficiency levels of the conventional and Islamic banking systems in financing investment while they are in operation side by side in the same economy. This is a dynamic analysis aimed at identifying the factors responsible for changing comparative efficiency positions of the two systems possessed under a static analytical framework. Since interest-based banking is in operation as a complete system in almost all the countries of the world, perhaps a better way of conducting dynamic comparative analysis is to study the efficiency of an Islamic Bank while it operates under the conventional banking framework. To facilitate the discussion, we may take recourse to the four efficiency criteria as mentioned earlier.

3.1 Productive Efficiency of FRM and VRM: The possibility of greater investment opportunity utilization under VRM, as found in partial analysis, may be significantly reduced soon after it starts operation under the conventional banking framework. Entrepreneurs, who are always concerned with maximization of profits, switch over to the banks in which the cost of borrowing is lower or where they have to sacrifice a lesser percentage of their profits. The owners of projects in the high profit zone may, therefore, switch over from VRM to FRM since throughout this zone $rf > ri$. That means, at this zone, the cost of borrowing for entrepreneurs is always higher under VRM than FRM.

The second reason for entrepreneurs to switch over from VRM to FRM might be VRM's desire to closely supervise the progress of the project which it has financed. Entrepreneurs may consider it as interference in their business. The third reason might be reluctance on the part of entrepreneurs to make public their accounts in order to avoid payment of taxes.

The fourth reason which may encourage the entrepreneurs to prefer borrowing from FRM is the advantage of flexible utilization of borrowed money from it.

This behaviour of the entrepreneur is illustrated in Fig. 4a where the segment of the *rf* curve in the high profit zone (left of P) is escalated downward and eventually coincides with *ri*, as shown in Fig. 4b.

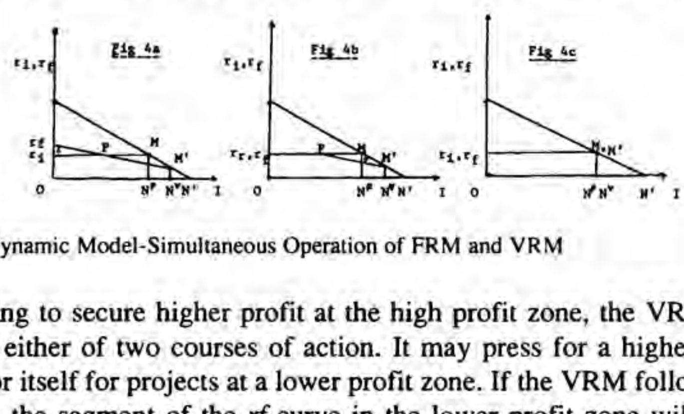


Fig-4: Dynamic Model-Simultaneous Operation of FRM and VRM

Failing to secure higher profit at the high profit zone, the VRM may follow either of two courses of action. It may press for a higher profit ratio for itself for projects at a lower profit zone. If the VRM follows this course, the segment of the *rf* curve in the lower profit zone will move upward and may coincide with the *ri* line as shown in Fig. 4c. In this case, the investment opportunity utilization level of the VRM will reduce to the level of FRM. If the VRM fails to move upward, its average profit will come down below that of the level of FRM.

Alternatively, the declining average profit share situation may compel the VRM to shift from profit-loss-sharing modes (such as *Mushārakah*, *Muḍārabah*) to other modes of financing, i.e. *Murābaḥah*, Hire-purchase, *Bai' al salam*, *al Bai' al mu'ajjal*, etc. The latter modes, though permissible by Shari'ah are considered to be less preferable.[16]

3.2 Allocative Efficiency of the FRM and VRM: FRM is not designed to allocate financing resources to economically and socially desirable directions nor does it satisfy the Pareto Welfare criterion. This situation does not change when the two systems of banking operate side by side at the same time in the same economy. But the higher allocative efficiency that the VRM was considered to be maintaining under a static analytical framework does not stand up when it starts operation under FRM. As shown in Fig. 4c, the *rf* curve, profitability, no longer serves as an allocating device under VRM, and thus, its efficiency level will come down to the level of FRM.

3.3 Distributive Efficiency of the FRM and VRM: As far as distributional efficiency is concerned, FRM maintains the same efficiency in both the static as well as the dynamic sense. In the new situation, FRM remains unaffected by the entry of VRM, and its distributive inefficiency continues to be at the same level as when it was functioning alone in the economy.

One the other band, the distributional efficiency level maintained by the VRM under a static analytical framework, disappears once it starts operation under the conventional banking framework. The assumed proportionality between incomes of the entrepreneurs, the bank and the depositors breaks as soon as the entrepreneurs switch over from VRM to FRM in quest of better terms.

3.4 Stabilization Efficiency of the FRM and VRM: FRM widens the gap between the cash flows and payment commitments which leads to investment instability. This situation does not change with the entry of VRM in the economy.

The VRM's claimed superiority in reducing cyclical fluctations is exclusively due to profit-loss sharing modes like *Mushārakah* and *Muḍārabah*, which works as a built-in stabilizer between the cash flows and payment commitments. But as soon as the VRM converts itself into a non-profit-loss sharing bank by abandoning *Mushārakah* and *Muḍārabah* financing, it ceases to function as a built-in stabilizer between cash flows and payment commitments. As a result, the positive role of the VRM in stabilizing investment converts into a negative one as played by the FRM.

4. FINDINGS AND POLICY IMPLICATIONS

It is evident from the analysis that Islamic banking is found to be efficient if it is the only system that operates in an economy. But as soon as we allow it to operate simultaneously with a conventional banking system, it loses its economic superiority. It does not happen because of any inherent shortcomings of the Islamic banking system, it comes about because of the continuation of the legacies of the conventional banking system. The policy implication of our analysis is not that Islamic banks should never be allowed to function under the conventional banking environment. Rather, our analysis shows that if they are expected to operate under conventional banking, specific geographic or economic areas or regions should be earmarked for Islamic bank to operate. Also, legal coverage should be provided for Islamic banks to apply and carry out all of their non-conventional modes of financing. Another set of strategies for Islamic banks to raise their profitability comparable to their conventional counterparts might be:

(a) To select only those entrepreneurs who are honest, sincere and committed to the cause of Islamic banking;

(b) to provide better consultation services to entrepreneurs regarding prospective profitable ventures, to monitor their business and to provide management assistance throughout the life of the project.

(c) to develop entrepreneurs who are interested in financing from Islamic banking in order to make the projects, financed by the bank, more profitable.

(d) to provide management and supervisory training to bank personnel/bankers.

Finally, considering the beneficial role that the Islamic banking system can play in promoting investment, efficient allocation of resources, better distributive justice and economic stability, Muslim countries may think about gradual conversion of conventional banking into Islamic banking.

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Islamic Corporate Finance: A Tool for The Development of Muslim Countries

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Islamic Corporate Finance: A Tool for The Development of Muslim Countries

ABSTRACT

This paper explores the application of Islamic principles to the three major areas of corporate finance: cost of capital and capital budgeting, management of working capital, and dividend policy. I postulate that the elimination of fixed income and debt securities will result in no hardships in the performance of managerial finance funcitons. I show that the use of straight equity, in a total Islamic environment will accelerate the economic development of Muslim countries.

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INTRODUCTION

There is a growing movement among Muslim countries to apply the Islamic code in their lives to obtain rapid economic development. The emergence of interest free banking and the collection and distribution of *zakat*[1] are the two notable efforts being made in this direction[2]. The motivation is that interest free banking will mobilize financial resources and Zakat lead to equitable distribution of wealth. However, the resources mobilized need to be put to productive use by firms. Corporate finance deals with the optimal utilization of the resources. To a great extent the concepts of Corporate finance are based on the availability and use of interest based securities. In an Islamic country such a security is not available. Thus the existing theories and practices of modern Corporate finance[3] must be modified. However, little work has been done in this area. The objective of this paper is to explore the implemention of Islamic Corporate Finance, and its impact on the economic development of Muslim countries. An effort will be made to answer such questions as:

1. What is corporate finance?
2. How does Islamic Corporate Finance (ICF) differ from Western Corporate Finance (WCF)?
3. What are the strengths and weaknesses of WCF and ICF?
4. How are the weaknesses of WCF remedied by ICF?
5. What role will government play in implementing the principles of ICF?

CORPORATE FINANCE

Corporate finance has been described in several ways. Ross, Westerfield, and Jordan[4] consider it as a study in the following three questions:

1. In what long-lived assets should the firm invest?
2. How can the firm raise cash for the required capital expenditures?
3. How should short-term operating cash flows be managed?

In the light of this definition, the topics discussed here include capital budgeting and cost of capital, working capital management and dividend policy under ICF. The basic difference in ICF and WCF is the non-availability of interest-based securities in Islamic economies. This results in differences in the measurement and management of cost of capital, financing techniques and instruments, capital structure and working capital policies.

STRENGTHS AND WEAKNESSES OF WESTERN CORPORATE FINANCE

WCF has been tried over a long time period. Methods have been designed to build the managerial practices on its strengths. Remedies for its weaknesses have been tried and retried. It has developed with the passage of tim, during which businesses matured in size and form. The operations of the financial markets are based on awareness of the practices, and requirements of corporate finance. Regulations and regulatory bodies have been established to adjust the operations of the markets and help the management of firms' financial resources function smoothly. Voluminous literature, both in applied and theoretical areas, exists to help professionals and practitioners.

Western Corporate Finance provides methods for stockholders' wealth maximization. It encourages investment and thus spurs economic development. However, interests of other stakeholders, such as workers and communities, are not considered. Under the pure profit maximization rule, products that could be harmful to the physical and spiritual health of users are produced under the pretext of satisfying the consumers' wants. Also, in spite of the accumulated literature, many problems basic to business operations in the area of corporate finance have not been solved. For example, the occurrence of bankruptcy is common, particularly for newly established firms. Above all, the application of the WCF principles has resulted in uneven development of communities.

STRENGTHS AND WEAKNESSES OF ISLAMIC CORPORATE FINANCE

The basic weakness of ICF is the inadequacy of empirical[5] evidence. It is based upon concepts postulated by the Qur'an[6] and Sunnah[7]. The nature and size of manufacturing processes which now form the basis of business practices did not exist at the time of the Prophet Muhammad (pbuh) and during the early Muslim period. They have not been tried and modified based on feedback. Hence, in the opinion of critics[8], the application of Islamic concepts may or may not succeed. Also, the feasibility of interest-free transactions in international trade is difficult if not impossible under the present circumstances.

Another fear expressed is that the absence of debt security will raise the discount rate. This is because the cost of debt is in general lower than that of equity. This will lead to the rejection of many good projects.

DISCUSSION OF STRENGTHS AND WEAKNESSES OF THE TWO SYSTEMS

The concept of value maximization is basic to WCF. To achieve this goal, the management develops new technologies, new products and new jobs. All these are in the best interests of the stockholders and the society. However, the type of products and services to be produced by the firms are often left to the judgement of the firm's management. A product such as beer can be produced with as much liberty as a loaf of bread. In an Islamic economy, the production of unhealthy products will be prohibited. Islam emphasizes freedom of markets, but does not preclude state intervention in business decisions that affect the welfare of the society. It permits businesses to achieve the goal of value maximization as long as there are no adverse effects on society. Thus the concept of value maximization can be slightly modified for adoption by the ICF. Under ICF, the production of unhealthy and luxurious goods will be restrained. Thus the supply of funds for (Islamically) acceptable projects will be higher in a Muslim country under ICF than under WCF.

Another argument against the nay sayers' fear of rejecting good projects under ICF asserts that investors have a certain risk free rate as a bench mark. In an Islamic economy, a risk free security is not available to the investors. However, in equilibrium, the required rate of return on any security will be based on the availability of investment opportunities and the supply of funds. Since the supply of funds for the production of necessary goods and services will be proportionately higher in a Muslim economy, the fear of rejecting good projects because of a supposedly higher discount rate is not well founded.

Further in WCF, to finance projects a firm uses debt to lower the cost of capital, adhere to its target capital structure, and to avail of tax shelter. Modigliani and Miller show that the real benefit of leveraging a firm is because of the availability of tax shelters though a non-tax shelter advantage is shown by Miller[9]. However, the tax shelter is not cost-free to the society. If a firm's productivity is less than the benefit of the tax shelter, then a wealth transfer occurs from the society to the shareholders of the company. In other words such a project can be value destroying for the society.

Firms in an Islamic economy will finance their projects with equity. Equity is inherently risky, and returns are not guaranteed. Thus potential buyers are motivated to analyze the security, carefully identifying its return and risk, before purchasing it. This analysis in itself has value. Investors become more knowledgeable about firms, their performance and promise. They will monitor the performance of a company more carefully if they are equity holders than if they were debt holders. This argument also applies to institutional investors such as banks and pension funds. When confronted with equity participation, they will do a more thorough investigation into a firm's financial health before investing than they do at present. They will provide the required financial help and effective monitoring of the business performance on a continuing basis. In the final analysis, the application of ICF is likely to result in better and stronger institutional relationships and faster economic development. It can lead to an evolution of general entrepreneurial spirit. Also, only healthy goods and services will be produced, and investors will earn fair returns.

COST OF CAPITAL AND CAPITAL BUDGETING

Capital budgeting involves the use of cost of capital and the expected future cash flows from the project. The procedure for estimation of cash flow is not likely to differ whether a firm follows WCF or ICF practices. However, the method of computing cost of capital needs further discusison. In the absence of debt securities the cost of capital is equivalent to the cost of equity[10]. It is measured using the Gordon-Lintner discounted cash flow method or the capital asset pricing model.

The Gordon-Lintner method assumes constant growth in dividends and is thus limited in its application. The use of the capital asset pricing model is more appealing[11]. The rate of return required on a project must be commensurate to the risk of the project. In WCF the return includes a risk free rate and the market risk premium. The model is stated as follows:

$$k_e = k_{rf} + b\ (k_m - k_{rf})$$

where

k_e is the required rate of return on a risky security, such as an equity security of a firm,

k_{rf} is the return on a risk free security, such as a U.S. Government Treasury bill, or a short term commercial paper,

k_m, is the return expected from an average market security, and

b is the risky security's beta and measures the volatility of the security with reference to the market.

In an Islamic economy, the CAPM needs to be modified.[12] Risk free returns are not available, and an individual has to pay 2.5% as zakah on uninvested capital. Under these circumstances, the CAPM can be stated as follows:

$k_e = -Z + b.(k_m + Z)$[13]

Thus in ICF, the slope of the Security Market Line (SML)[14] will equal $k_m + Z$, and intercept $- Z$.

Figure 1 shows the SMLs drawn under the two environments.

An examination of Fig. 1 shows that for high betaprojects the required rate of return will be higher in Islamic economies than in Western economies. However, for up to moderate-systematic risk (beta = 1) projects the required return will be lower in Islamic economies than in Western economies. Thus in an Islamic economy moderate risk projects with lower required rate of return will be accepted in large numbers. At the same time, high risk projects will be rejected with greater probability, resulting in fewer bankruptcies. (Incidentally, Islam prohibits undertaking high risk[15]. However, high risk projects, such as research and development, may be undertaken by the government sector.

MANAGEMENT OF WORKING CAPITAL

Availability of sufficient working capital is important for a firm. Managers spend considerable time on its day-to-day management. Its shortage can result in bankruptcy. However, its excess reduces profitability. In WCF, temporary financing needs are satisfied by short-term bank borrowing. The objective is to maintain flexibility: use the funds when needed and return them when not needed. This creates liquidity risk. Firms can be forced into bankruptcy if they fail to pay off their short-term obligations, in the form of principal or interest. The fear of bankruptcy makes firms restrict their operations. This lost freedom of action can result in lower profitability.

In an Islamic economy, firms will use either temporary equity securities or borrow on a no-interest basis from trade cooperatives. This action will minimize/eliminate the risk of liquidity and will enhance the freedom of action of management. The firm's management will have more time, comparatively, for production, marketing and human relations decisions. Careless management of resources is not likely to occur, because an Islamic economy will have the force of market discipline. However, equity when used to satisfy short-term financial needs creates excess liquidity in slack sales periods. This can result in lower profitability. To overcome this problem a firm can engage in repurchasing its own shares whenever it has excess cash. This will satisfy the needs of short-term investors and avoid the dilution of earnings. Prior to selling temporary equity, firms will announce their intention to buy it back in the open market after a specified period.

The other use of temporarily excess funds is to deposit them in cooperative banks/credit unions maintained by businesses. Funds from this cooperative could be drawn by businesses for use in peak sales periods. Since peaks for different types of businesses occur at different times, these cash balances will provide a constantly replenishing and depleting pool of funds. Such an arrangement is particularly suitable for vertically located firms in an industry. For example, for a toy manufacturer peak sales occur two or three months before *Eid*[16]/Christmas and the peak sales of distributors and retailers occur immediately before and during *Eid*/Christmas period. This will improve the relationship between manufacturers and distributors and encourage them to plan in cooperation with each other.

A question arises that if a firm sells temporary equity and then fails to repurchase it, what recourse do the temporary stockholders have? This can happen in two instances. First, the firm does not have enough cash to redeem those securities. In such a situation, the temporary stockholders could be given some options: (1) convert the market value of equity to an interest free loan, (2) sell the security in the open market, or (3) wait till the firm has cash to repurchase in future. Second, a firm could choose to not to repurchase the temporary equity out of dishonesty. However, this sends a signal to the market that the particular firm cannot be trusted. This firm will not be able to raise capital in this form in the future. Also, if some short-term equity holders hold on to their investment, it will create an overhang diluting the earnings for the permanent stockholders. Thus , an incentive to repurchase the stock exists. Therefore, a firm would strive to repurchase short-term equity if financially feasible.

The consequent decrease in the importance of short term bank borrowing is not harmful. A survey conducted by the Prudential Securities Inc. shows that for some companies bank debt is now the last resort for short-term financing, instead of the first[17]. This is because the bank loan covenants are very restrictive.

Trade Credit

All businesses supply as well as receive trade credit. As long as it is free of cost to buyers, it is acceptable in Islam. However, if the price of goods is different to cash and credit customers, it becomes unacceptable because it is interest charged in disguise. However, if all suppliers offer the same terms, whether it is a cash or credit purchase, incentive to competitive advantage by varying credit terms vanishes. Competition has reduced the usage of differential pricing for cash and credit purchases even in the western societies. For example, gas companies such as Chevron and FINA had to reverse their decision of differential pricing to cash and credit customers. Thus a practice that is unIslamic in nature is being scrapped because of its baneful competitive influences.

Terms of trade

Businesses offer terms/discounts to collect receivables as early as possible.[18] In the WCF an incentive such as 2/10 net 30 is permissible, but not so in Islam. Again we find that the delay in payment occurs for two basic reasons: financial difficulties or dishonesty. In case of difficulty, the Islamic spirit is to grant some reprieve. However, the possible misuse of this reprieve can occur. Traders can discourage this misuse and dishonest practices by maintaining a data bank and sharing it with other traders in the same industry and locality. With no trader providing financial incentives to pay earlier and habitual delinquency causing other businesses to refuse credit, the motivation to engage in this undesirable practice is eliminated.

Thus the management of working capital is no more difficult under ICF than under WCF. The advantage of ICF is that the liquidity risk is lowered, and management can operate with reduced restrictions. Additionally, the issuance and marketability of short-term equity securities will create an active stock market so necessary for the rapid economic development of a country.

Dividend Policy

The dividend policy of a company forms the basis for distributing the income generated by its operations to the stockholders. Under ICP the stockholders provide both the long-term and short-term financing. As stated earlier, because of short-term equity it is possible that during periods of slack sales, a seasonal phenomenon, firms will have excess cash on hand. This can reduce their earning potential or cause firms to be cash-rich-careless. To avoid this, firms need to devise a dividend policy that will take care of not only the truly distributable cash in the form of dividends, but also this temporarily excess cash. One possible use of the excess cash is to use it to repurchase own shares in the market; the other use being a deposit with trade cooperatives. So far as the dividend on permanent portion of the equity is concerned, the WCF and ICF have no differences. If the firm does not have positive NPV projects available, it will distribute the earnings to stockholders, otherwise retain them for reinvestment. Given the mix of its stockholders it may decide on any of various alternative policies. However, the residual dividend policy is the most desirable one.

The question is: How does ICF help economic growth with reference to the dividend policy? First, as discussed in the previous section, for the dividend on the temporary portion of the equity, repurchase of stock at very frequent intervals will introduce active trading in the firm's security. This will, on an aggregate basis, develop an active stock market that is a powerful engine for the economic development of an economy[19]. It will enable the firms to follow the residual dividend policy. Bear in mind that it is not going to be an expensive proposition for the firm. Now a-days the use of computers has reduced the cost of data collection and maintenance tremendously. Also the old practice of issuing share certificates has given way to computer entries. As regards the brokerage costs to firms of issuing and repurchasing securities and to investors of buying and selling securities, it is expected that large trading volumes will result in economies of scale. Also in such an active market, competitive forces would keep costs on a low level. Also the required rate of return is lower for moderate risk projects under ICF. This will increase the optimal capital budget of a firm leading to higher investment levels for individual firms and the total economy.

Thus dividend policy under conditions of ICF will result in comparatively rapid development of stock markets and larger aggregate investment.

Partial or Complete Change of System

There exist a number of questions regarding the implementation of ICF. First, should it be instituted as a choice to individual firms or as a change in the whole financial system? As bad money chases out good money the partial application of ICF in an atmosphere of WCF will minimize the potential benefits of ICP.[20] This has been manifested in the banking sector, where some countries permitted the existence of interest-based as well as interest free banking[21]. Also many investors (firms) prefer buying (selling) debt security instead of equity. This can create an unlevel playing field. Thus permitting firms the choice of system will be harmful. Second, will institution of ICF not encourage entrepreneurs to cheat? Under ICF firms can engage in interest-free borrowing. Also they expect reprieve if unable to pay at maturity. Thus an incentive exists for a dishonest manager to cheat. However, in financial markets, cheating is not possible on a continuous basis.

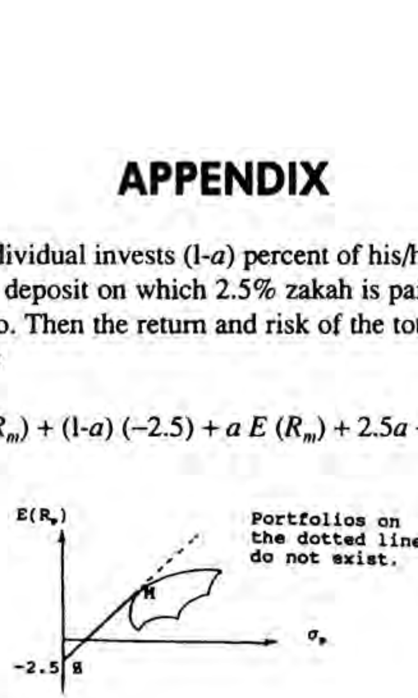
Conclusions

The application of the principles and practices of Islamic Corporate Finance will result in more investment by businesses. The failures of businesses will decrease. Businesses will be able to operate under the value maximization principle and consumers will have greater access to necessities. The production of unhealthy goods and services will be eliminated. A faster economic growth rate will be possible under Islamic than under the western financial practices. However, the successful application of ICF will require a total change in the economic system to conform to the Islamic code. The introduction of ICF will require proper training of managers, employees and relators. Also strict adherence to the Islamic code of rewards and punishment will be required to encourage everybody to follow Islamically acceptable business practices.

APPENDIX

Suppose an individual invests (l-a) percent of his/her wealth in a zero interest, risk free deposit on which 2.5% zakah is paid and 'a' percent in a market portfolio. Then the return and risk of the total portfolio may be stated as follows:

$$E(R_p) = a\,E(R_m) + (1\text{-}a)(-2.5) + a\,E(R_m) + 2.5a - 2.5$$
$$\sigma(R_p) + a\,\sigma_m$$



slope of line ZM is given by

$$\left.\frac{\dfrac{\delta E(R_p)}{\delta a}}{\dfrac{\sigma E(R_p)}{\delta a}}\right|_{a=1} \qquad \frac{E(R_m)+2.5}{\delta_m} \qquad \text{---}(1)$$

However, the slope of the line ZM may be stated as:

$$\frac{E(R_i)-E(R_m)}{(\sigma_{im}-\sigma^{2m})/\sigma_m}\text{---}(2)$$

where $E(R_i)$ is the expected return on the risky security i and σ_{im} is the covariance of R_i and R_m.

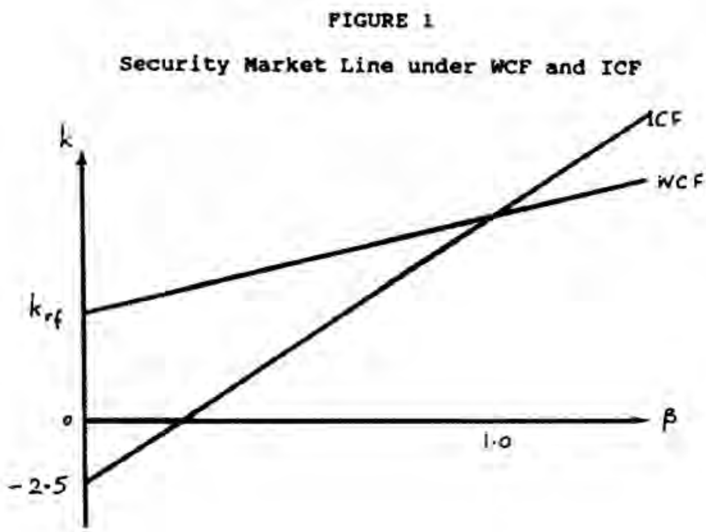
Equating (1) and (2) and simplifying the following relationship obtains:

$$E(R_i) = -2.5 + \beta_1[E(R_m)+2.5]$$

where $\beta_1 = \dfrac{\sigma_{im}}{\sigma^2{}_m}$

FIGURE 1

Security Market Line under WCF and ICF



1. Beta of a security j under WCF is Cov (k_m, k_j)/Var (k_m), and under ICF is Cov $(k_m - Z, k_j - Z)$/Var$(k_m - Z)$. Since Z, the zakah rate, is a constant, the Beta of a security is the same under either corporate finance regime.

2. Since k_{rf} is the sum of the real interest rate and inflation expectation, it has been and is likely to be, always higher than the zakah rate.

3. The slope of the SML under WCF is '$k_m - k_{rf}$', and under ICF it is '$k_m - Z$'. Given Note 2 above, the slope of SML under WCF is lower than under ICF.

4. More high beta (highly risky) projects are rejected under ICF than under WCF. On the other hand, more low risk projects are accepted under the ICF than under the WCF.

NOTES:

1. Zakat is a charity tax imposed upon all Muslims possesing more than a minimum level of wealth. The rate is 2.5% of univested wealth.
2. N.U. Haque and Abbas Mirakhor, "Optimal Profit—Sharing Contracts and Investments in an Interest-Free Islamic Economy", *IMF Working Paper* (WP 86/12) (Washington, D.C.: International Monetary Fund, 1986)
3. To distinguish between modern corporate finance and the corporate finance envisionce) in an interest-free environment. I shall refer to the former as Western Corporate Finance (WCF) and the latter as Islamic *Corporate Finance* (ICF).
4. S. A.Ross, W. Westerfield and J. F. Jaffe, Corporate Finance, 3rd Edition, (Homewood, IL: Irwin, 1993) p. 5. For some other definitions see E. F. Bringham and L. C. Gapenski, *Financial Management: Theory and Practice*, 6th Edition, (Fort Worth; TX: The Dryden Press, 1991,) p. 9; J. D. Martin, S. J. Cox and R. D. MacMillan, *The Theory of Finance: Evidence and Applications*, (Fort Worth,TX: The Dryden Press, 1988) p. 9; and E. F. Fama and M. Miller, *The Theory of Finance*, (Hinsdale, IL: The Dryden Press, 1972).
5. I know of only two empirical studies: One by A. F. Darrat, "The Islamic Interest-Free Banking System: Some Empirical Evidence," *Applied Economics*, (March 1988): 417-425; and the other by A.B. Bashir, A. F. Darrat and M. O. Suliman, "Equity Capital, Profit-Sharing Contracts and Investment: Theory and Evidence," *Journal of Business Finance and Account* 20 (1993): 639-651. However, there are a number of good theoretical and descriptive studies, mostly dealing with Islamic Banking, e.g. N. U. Haque and Abbas Mirakhor, "Optimal Profit-Sharing Contracts and Investments in an Interest-Free Islamic Economy", *IMF Working Paper* (WP 86/12), (Washington, D.C.: International Monetary Fund, 1986); and M. Khan, "Islamic Interest-Free Banking: A Theoretical Analysis", *IMF Staff Papers*, Vol. 33 (March 1986) and Inayat U. Mangola, J. Y. Uppal and C. R. Krishawamy," Interest-Free Banking—A Financial Innovation? Some Conceptual Issues," *Journal of the Midwest Finance Association*, 17 (1988).
6. The Quran, the book revealed to Muhammad (p.b.u.h.) prohibits charging of interest.
7. The Sunnah comprises the actions, statements and tacit approvals of Prophet Mohammad. Each report of an aspect of the Sunnah is a hadith.
8. Some examples are: E. L. Prayer, "The Islamic Economic System", *Journal of Comparative Economics*, 9 (1985): 197-223; V. Nienhaus, "Profitability of Islamic PCS Banks Competing with Interest Banks: Problems and Prospects," *Journal of Reserch in Islamic Economics* 1 (1983): 37-47; M. Rodinson, *Islam and Captitalism*, trans. by Brian Pearce (Austin, TX: University of Texas Press, 1978); and T. Kuran, "The Economic System in Contemporary Islamic Thought: Interpretation and Assessment," *International Journal of Middle East Studies* (1986): 135-164.
9. F. Modigliani and M. Miller, "Corporate Income Taxes and the Cost of Capital," *American Economic Review* (June 1963): 433-443 and M. Miller, "Debt and Taxes," *Journal of Finance* (May 1977): 261-275.
10. Here I assume that firms will be using an all equity capital structure. This is a debatable assumption. Harris and Raviv point to a number of reasons why firms use fixed cost securities in their capital structures; M. Harris and A. Raviv, "The Theory of Capital Structure," *Journal of Finance* (March 1991): 297-355. However, none of the theories of capital structure mentioned in their paper suggests the infeasibility of an all equity capital structure. For example, control can be retained by using different classes of common stock. Further, in an environment and agency theories are irrelevant to a great extent. Still, some securities such as 'Participation Term Certificates' have been developed to conform Quasi-debt securities to the Shari'ah.

In application they smell of interest-based securities. (For a detailed analysis of this security, please see Naseem, *Interest-Free Economy: A Practical Approach*, Islamabad: Swera Publicity Bureau (1986): 50-57.). My personal opinon is that, over time, financial markets will develop various types of equity securities which will take care of short as well as long term financing needs. Any efforts to muddy the water by designing securities which will bring in interest in the garb of profit will be a big step backward. In fact, the beauty of Islamic Finance is in its simplicity, not complexity.

11. There have been studies (e.g., E. F. Fama and K. R. French, "The Cross-Section of Expected Stock Returns," Journal of Finance (June 1992): 427-465) questioning the accuracy of CAPM (Sharp-Lintner-Mosin version) in estimating the accuracy of the requried rate of return. However, in the absence of any other tool, this is a very useful technique because of the ex-ante logic built into it. Black's version of an alternative model does exist. In the absence of a risk free security, it is to me palatable. However, this model requires the formulation of a zero beta portfolio. According to S. A. Ross, "The Capital Asset Pricing Model (CAPM), short sale Restrictions and Related Issues," *The Journal of Finance*, (March 1977): 177-184] there is no way of constructing a zero beta portfolio without the availability of unrestricted short selling. In a short sale, investors are assumed to be able to sell shares which they do not already own. [See T. E. Copeland and J. F. Westan, *Financial Theory and Corporate Policy*, 3rd edition, (Addison Wesley Publishing Co., 1988)]. Such a transaction, selling something you do not own, is pure speculation. Also, borrowing shares from a broker to sell short would require an interest-based transaction. Looking at various aspects of a short sale I do not envision any way that a broker would be willing to lend on an interest-free basis. Thus a zero beta portfolio cannot be formulated in an Islamic economy. I, therefore, feel comfortable in suggesting the suitability of the SLM version of the CAPM.
12. For purpose of comparison I have assumed a no tax world. I feel comfortable in saying that the exclusion of corporate and personal taxes from the CAPM will not cause any distortions in the conclusions, for the following reasons:
    1. Corporate and personal taxes are levied by Islamic and non-Islamic governments. These taxes are used to provide various services such as roads, education, etc. Zakah is a charity tax, a poor due. It is a levy imposed by God, in addition to corporate or personal taxes. Thus the CAPM is tax neutral as far as Islamic and non-Islamic environments are concerned. For greater detail, see Mahmoud Abu-Saud, Contemporary Zakat (Cincinnati, Ohio: Zakat and Research Foundation, 1988) 164.
    2. A. J. Brennan "Taxes, Market Valuation and Corporation Financial Policy", *National Tax Journal* (December 1970): 417-427 has shown that the required rate on a security is affected by the tax rate, and thus it should be incorporated in the CAPM. However, it may be noted that Brennan's regression study is based on differential taxation of capital gains and dividend yield. As of now the U.S. tax law has eliminated this differential. Still because of the availability of discretion, it is possible that the regression coefficient for dividend yield may be significant. This requires a new study which has yet to be conducted.
13. For a mathematical derivation of this relationship see Appendix.
14. See Shahrukh Rafi Khan "Profit and Loss Sharing: An Islamic Experiment" in *Finance and Banking* (Karachi: Oxford University Press, 1987)] for a different SML under ICF.
15. See Imam Malik bin Anas, *Al Muwaṭṭa'* trans. by Aisha Abdurrahman Bewley (London: Kegan Paul International, 1989), p. 271.
16. Eids are days of celebration for Muslims. For exchange of gifts and store sales they are akin to Christmas.
17. Fred Bleakley, *Wall Street Journal*, A5, Col. 4 (October 20, 1993).
18. This does not apply to credit card issuers, who are banks, and thus prefer to earn

interest than collect principal.

19. R. Levine, "Stock Markets, Growth and Tax Policy," *Journal of Finance* (September 1991): 1445-1465.
20. T. Kuran, "The Economic System in Contemporary Islamic Thought: Interpretation and Assessment," *International Journal of Middle East Studies* (1986): 135-164.
21. T. E. Copeland and J. F. Western, op. cit., see note 11.

THEORY OF PARTICIPATING TERM CERTIFICATES:

A GENERAL EQUILIBRIUM PERSPECTIVE

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This study is dedicated to *al Salaf al Sālih*, the first generation of God-fearing Muslims. An earlier version of this paper was presented at the Fifth International Islamic Economics Conference at the World Bank in Washington D.C. on October, 1993. Comments from the participants at the conference including the discussant are appreciated. I am also grateful to M. Fahim Khan of the Islamic Development Bank for providing me necessary information related to this study.

ABSTRACT

A participating term certificate is a debt instrument that provides the financing of a business at an interest rate which is a function of the net operating income and the appreciation of the business. This financing technique does not contradict the moral tenets of Islam. It is currently being used in Pakistan and, over time, may be used in other Muslim countries such as Indonesia, Iran, Malaysia, Saudi Arabia, etc.. The main purposes of this study are to present a mathematical model of a participating term certificate using general equilibrium theory for risk averse investors and to present the properties of the equilibrium conditions under this form of financing.

I. Introduction

A participating term certificate, as defined by Qureshi, is a "transferable corporate instrument based on the principle of profit and loss sharing, and is intended to replace debentures for providing medium and long-term local currency loans for industrial and other financing".[1] It has recently been introduced in Pakistan. The concepts behind it are similar to that of an equity participating mortgage observed in the U.S.[2] The reason for initiation of this vehicle is that Pakistan, a Muslim country, has decided to realign its commercial practices within the framework of the moral tenets of Islam. Islam has always nurtured the concept of free market with state intervention only in extreme situations, as postulated by reformers such as Ibn Taimiya[3]. The distinctive practice of an Islamic economic system is the avoidance of contracts based on *ex-ante* fixed interest (*riba*).[4]

The basis of Islamic banking, as explained by Muslim economists such as Siddiqi, is that equity participating contracts are more efficient than those based on *ex-ante* fixed interest.[5] In fact, there is ample empirical evidence on this issue in the literature of the Equity Premium Puzzle. Western economists, such as Mehra and Prescott and others, have been perplexed by the fact that stocks, in spite of their risk and adjustment for it, offer much higher returns than bonds.[6] Abel summarizes the work of top-notch economists and assails the inability of sophisticated techniques such as the Consumption Capital Asset Pricing Model (CCAPM) to explain this. He calls for the overhauling of CCAPM and the theory of long-run economic growth and the new strand of the real business cycle theory.[7] Siegel concludes that "Equities, however, still appear to be the best route to long term wealth accumulation".[8] Weitzman, on the other hand, has extended this idea even to the payment of wages. he proposes that "U.S. industry abandon the practice of paying fixed wages and adopt a scheme that compensates workers in relation to their employer's revenue or profit".[9]

The main purpose of this paper is to present a mathematical model of a quasi-equity debt instrument in which:

(a) the borrower benefits from retention of control of the business, leverage, tax benefits, lower debt service in the poor state of the economy, and risk reduction.

(b) the lender benefits from participation in cash flow of the enterprise and thus is hedged against inflation.

Optimal financial contracts which encompass the allocation of cash flows and control rights have been discussed extensively by pioneers such as Harris and Raviv.[10] But they have excluded theories based on tax consideration. This paper, therefore, emphasizes the optimal sharing arrangement between lender and borrower in case of a participating term certificate incorporating the tax deduction such as depreciation and interest expense write-offs. The model is developed in the context of a two-period general equilibrium model for risk averse investors.[11]

The structure of this paper is as follows: Section II presents a theoretical underpinning of the proposed instrument, Section III illustrates the properties of the equilibrium conditions, and Section IV concludes the paper.

II. Modeling Asset Prices In A Two-Period Economy:

Consider the following two period general equilibrium model: At time $t = 0$, there are N agents in the economy who are young in period $t = 0$, old/retired in period $t = 1$, and dead in period $t = 2$ and beyond. Half of the agents/investors are in the τ marginal tax bracket, and the other half are in the zero tax bracket. This is the only form of heterogeneity in the model. There are only two kinds of assets in the economy. One is a 'business venture', which yields a stream of net operating income $\{d_1\}$ and a liquidating dividend $\{P_1\}$, where d_1 and positive, random, first order Markov processes. The second asset is a risky loan in zero net supply, as explained in the market clearing condition. It is assumed that all investors consume either from the endowment, or from the business investment in the form of cashflow after tax, or from interest income described below. Investors retire in period 1 and consume whatever is left of the portfolio of business and loan. The Government allows a one time tax depreciation D_0 which is proportional to the assets, and hence the price P_0, of the venture. This depreciation has to be recaptured at an effective capital gains rate g which is assumed to be a fraction of the ordinary income tax rate[12]. There are (N/2) business ventures in the economy which are assumed to last longer than the life of the investors[13]. All investors have endowments of w_0 in period zero. These endowments are not taxed. The investors have a choice of buying the business with all endowment or using leverage. The loan here is assumed to be between the two types of investors. The interest rate i charged by a lender is the return on the loan demanded by the lender. The analysis is done by modeling the returns to both types of investors. The paper then investigates whether the solution is an interior or a corner solution[14].

A: Modeling Objective Function Of A Non-Taxable Investor

The first step is to optimize the expected utility of a non-taxable investor subject to the constraints:

$$Max.\ E_0\ \{U\ (c'_0) + \gamma U\ (c'_1)\} \qquad (1')$$
$$(in\ Q'_0,\ c'_0,\ c'_1,\ s')$$

Subject to:

$$c'_0, + Q'_0, s'P_0 = w_0 \qquad (2')$$
$$c'_1, = Q'_0\,(1 + i\,) + s'\,(d_1 + P_1) \qquad (3')$$

where: E_0 { } is the expectation operator at time 0.

$U(\ )$ is the utility function.

c'_0 is the consumption of non-taxable investor at time 0.

c'_1 is the consumption of non-taxable investor at time 1.

γ is the discount factor.

s' is the fractional investment in business by non-taxable investor.

Q'_0 is the amount of funds lent ($Q'_0 > 0$) or borrowed ($Q'_0 < 0$).

P_0 is the price of business at time 0.

w_0 is the endowment at time 0.

i is the variable interest rate.

d_1 is the net operating income (NOI) of the business received at time 1.

P_1 is the liquidating value of the business at time 1.

The lagrangian L' can be written as follows:

$$L' = E_0\{[U(c'_0) + \gamma U(c'_1)] + \lambda'_0[w_0 - s'P_0 - Q'_0 - c'_0]$$
$$+ \lambda'_1\,\gamma[Q'_0(1+i) + s'(d_1 + P_1) - c'_1]\}$$

The First Order Necessary Conditions (F.O.N.C.s) are given by:

$$\frac{\delta L'}{\delta c'_0} = 0 \Rightarrow E_0 U'(c'_0) = \lambda'_0, \tag{4'}$$

$$\frac{\delta L'}{\delta c'_1} = 0 \Rightarrow E_0 U'(c'_1) = \lambda'_1, \tag{5'}$$

$$\frac{\delta L'}{\delta Q'_0} = E_0\{\lambda'_0(-1) + \lambda'_1 \gamma(1+i)\} = 0$$

Using (1′) and (2′), we get:

$$\frac{\delta L'}{\delta Q'_0} = E_0\{-U'(c'_0) = \gamma U'(c'_1)(1+i)\} = 0, \quad \text{and} \tag{6'}$$

Investors will keep on buying fractional shares of business until net benefit equals zero at the margin. Similarly investors will avoid business if net benefit is less than zero at the margin. This can be represented by the partial derivative of the lagrangian w.r.t. the fractional shares owned as given below:

$$\frac{\delta L'}{\delta s'} = E_0\{\lambda'_0[-P_0] + \lambda'_1 \gamma[d_1 + P_1]\}$$
$$= E_0 U'(c'_0)[-P_0] + \gamma U'(c'_1)[d_1 + P_1]\}$$

= 0 for an interior solution, where both investors own a fraction of the business equity.
< 0 for a corner solution, where the non-taxable investor does not own any business equity
i.e. s' = 0. (7′)

Moreover the budget constraint (a') must be satisfied and the budget constraint (b') must hold in every state of the economy in period 1. The second order conditions for a maximum are verified by showing the bordered Hessian matrix to be negative semi-definite. Details of the proof are available upon request.

B: Modeling Objective Function Of An Investor In The τ Tax Bracket[15]
Consider the τ tax bracket investor. The goal of this investor is to maximize expected utility subject to budget constraints:

$$Max.\ E_0\ \{U\ (c_0) + \gamma U\ (c_1)\} \quad (in\ Q_0, c_0, c_1, s) \tag{1}$$

Subject to:

$$c_0 + sP_0 + Q_0 = w_0 \tag{2}$$

$$c_1 = s\ [d_1\ (1 - \tau) + P_1\ (1 - g\tau) + \tau\ (D_0\ (1 - g) + gP_0)] + Q_0\ [1 + i\ (1 - \tau)] \tag{3}$$

where: E_0 { } is the expectation operator at time 0.

$U(\ )$ is the utility function.

c_0 is the consumption of taxable investor at time 0.

c_1 is the consumption of taxable investor at time 1.

γ is the discount factor.

s is the fractional investment in business by taxable investor.

Q_0 is the amount of funds lent ($Q_0 > 0$) or borrowed ($Q_0 < 0$).

P_0 is the price of business at time 0.

w_0 is the endowment at time 0.

i is the variable interest rate.

d_1 is the net operating income (NOI) of the business received at time 1.

P_1 is the liquidating value of the business at time 1.

τ is the marginal tax rate on interest/dividend/rental income.

g is the effective capital gains rate.

$g\tau$ is the capital gains tax levied on the appreciation of business.

τD_0 is the tax depreciation allowed in the law.

$g\tau D_0$ represents the recapture of the depreciation as capital gains.

k represents the depreciation constant (rate of depreciation allowed) i.e. $k = \dfrac{D_0}{P_0}$

For an explanation of the cash flow after tax from operation and the sale of business see Ebrahim and Hasan[16].

The lagrangian L' can be written as follows:

$$L_0 = E_0\{[U(c_0) + \gamma U(c_1)] + \lambda_0[w_0 - sP_0 - Q_0 - c_0] + \lambda_1\gamma[s[d_1(1-\tau) + P_1(1-g\tau) + \tau(D_0(1-g) + gP_0)] + Q_0(1 + i(1-\tau)) - c_1]\}$$

The (F.O.N.C.s) are:

$$\frac{\delta L}{\delta c_0} = 0 \Rightarrow E_0 U'(c_0) = \lambda_0, \tag{4}$$

$$\frac{\delta L}{\delta c_1} = 0 \Rightarrow E_0 U'(c_1) = \lambda_1, \tag{5}$$

$$\frac{\delta L}{\delta Q_0} = E_0\{\lambda_0(-1) + \lambda_1 \gamma(1 + i(1-\tau))\} = 0$$

Using the F.O.C.s (1), and (2), we get:

$$\frac{\delta L}{\delta Q_0} = E_0\{[-U'(c_0) + \gamma U'(c_1)(1 + i(1-\tau))]\} = 0, \quad \text{and} \tag{6}$$

Investors will keep on buying fractional shares of business until net benefit equals zero at the margin. Similarly, investors will avoid the venture if net benefit is less than zero at the margin. This can be represented by the partial derivative of the lagrangian w.r.t. the fractional shares owned as given below:

$$\begin{aligned}\frac{\delta L}{\delta s} &= E_0\{\lambda_0[-P_0] + \lambda'_1 \gamma[d_1(1-\tau) + P_1(1-g\tau) + \tau(D_0(1-g) + gP_0)]\} \\ &= E_0\{U'(c_0)[-P_0] + \gamma U'(c_1)[d_1(1-\tau) + P_1(1-g\tau) + \tau(D_0(1-g) + gP_0)]\}\end{aligned}$$

= 0 for an interior solution, i.e. where both investors own a fraction of the business equity, and
< 0 for a corner solution, where the taxable investor does not own any business equity i.e. $s = 0$. (7)

Here also the budget constraint (a) must hold and the budget constraint (b) must be satisfied in every state of the economy in period 1. The second order conditions for a maximum can be verified by showing the bordered Hessian matrix to be negative semi-definite. Details of the proof are available upon request.

C: The Market Clearing Conditions

The following conditions are needed for equilibrium:

(a) For the money market to be in equilibrium, it is necessary that $(Q_0)_{\text{Borrowed}} = -(Q_0)_{\text{Lent}}$, i.e. $Q'_0 + Q_0 = 0$. (8)

(b) For the goods market to be in equilibrium, it is needed that s = fractional shares owned by the taxable investor = $1-s' = 1 -$ (fractional shares owned by the nontaxable investor), i.e. $s' + s = 1$.

Since, selling a company's stock short is not permitted in Islam, according to Ebrahim (1992), we need both $s' \varepsilon [0,1]$, and $s \varepsilon [0,1]$. (9)

(c) At time $t = 0$ it is required that:

$c'_0 + Q'_0 + s'P_0 = w_0$ (Budget Constraint (2'))

$c_0 + Q_0 + sP_0 = w_0$ (Budget Constraint (2))

$$\therefore c'_0 + c_0 = 2w_0 - s'P_0 - sP_0 = 2w_0 - P_0 \qquad (10)$$

(d) At time t = 1 it is required that:

$c'_1 = Q'_0\ (1+i) \quad +s'(d_1+P_1)$ (Budget Constraint (3'))

$c_1 = Q_0\,[1+i\,(1-\tau)] + s(d_1(1-\tau) + P_1(1-g\tau) + \tau(D_0(1-g) + gP_0)]$.

(Budget Constraint (3))

$$\therefore c'_1 + c_1 = (d_1 + P_1) + s\tau[-d_1 - gP_1 + P_0(k(1-g) + g)] + Q'_0\, i\tau \qquad (11)$$

D: Solution For Risk Averse Investors[17]

The analysis assumes the Constant Relative Risk Aversion (CRRA) utility function to represent the agents/investors. The reasons for selecting the CRRA utility is that if an investor has decreasing absolute risk aversion and constant relative risk aversion, then he will invest more dollars in risky assets as his wealth increases but the *percentage* invested in risky assets will remain unchanged. This assumption appears consistent with actual practices of investors such as pension funds, who allocate a fixed proportion of around 4% to real estate. Moreover, there are researchers such as Blume, Friend and Hodrick who have recommended the use of CRRA utility functions for their convenience and ease of modeling.[18]

With CRRA utility function we have:

$$U(c_i) = \left(\frac{[c_i]^{[1-\alpha]}}{1-\alpha}\right) \Rightarrow U'(c_i) = \left(\frac{1}{[c_i]^{\alpha}}\right) \forall \alpha > 0$$

For these investors there are, in general, two possibilities i.e. two corner solutions, as described below.

LEMMA 1: A participating term certificate is an optimal financing vehicle (in all the solutions presented below).

The F.O.N.C.'s can be solved for various kinds of loans such as a variable (quasi-equity) participating term certificate or a fixed interest loan or a combination of both. Since the goal of this paper is to focus on the one which is in strict conferment with the Islamic (Shari'an) law, the solution below presents the case of a participating term certificate.

Case 1: First corner solution $s = 1$, i.e. Taxable investor owns 100% of all business equity.

The basic condition needed here is:

$$P_0 [\, k\,(1-g) + g + i_j] > [\, d_{1j} + P_{1j}\, g] \tag{12}$$

i.e. Tax benefits (of depreciation and interest expense write-off) exceed tax liabilities (from NOI and appreciation) in each state of the economy in the next period.

The above condition is the basic property of this corner solution. It is discussed in Proposition 3.

The price P_0 of the enterprise can be determined by solving the following equation iteratively with a computer:

$$P_0 = \{\frac{w_0[\gamma^{[1/\alpha]}[E_0[d_1[1-\tau]+P_1[1-g\tau]-\tau P_0[k[1-g]+g]]^{[1-\alpha]}]^{[1/\alpha]}]}{[P_0^{[1-\alpha][1/\alpha]}+[\gamma^{[1/\alpha]}[E_0[d_1[1-\tau]+P_1[1-g\tau]+\tau P_0[k[1-g]+g]]^{[1-\alpha]}]^{[1/\alpha]}]]}$$

$$+\{\frac{w_0[\gamma^{[1/\alpha]}[[E_0[d_1[1-\tau]+P_1[1-g\tau]-\tau P_0[1-g][1-k]]^{[1-\alpha]}]^{[1/\alpha]}]}{[[1-\tau]P_0^{[1-\alpha][1/\alpha]}+[\gamma^{[1/\alpha]}+[[E_0[d_1[1-\tau]+P_1[1-g\tau]-\tau P_0[1-g][1-k]]^{[1-\alpha]}]^{[1/\alpha]}]]}\} \quad (13)$$

The interest rate i_j (in state j of the economy in period1) can be evaluated as:

$$[1+i_j] = \{\frac{[d_{1j}[1-\tau]+P_{1j}[1-g\tau]-\tau P_0[1-g][1-k]}{[1-\tau]P_0}\} \quad (14)$$

The optimal loan amount Q'_0 can be evaluated as:

$$Q'_0 = \{\frac{[w_0[\gamma[E_0[1+i]^{[1-\alpha]}]^{[1/\alpha]}]]}{[1+[\gamma[E_0[1+i]^{[1-\alpha]}]^{[1/\alpha]}]]}\} \quad (15)$$

The consumption levels are given by:

$$c'_0 = w_0 - Q'_0;\ c_0 = w_0 + Q'_0 - P_0 \quad (16)$$

$$(c'_{1j}) = Q'_0[1+i_j] = \frac{[d_{1j}+P_{1j}]}{\beta}$$

where $(1/\beta)$ is the debt to asset ratio i.e. (Q'_0/P_0); and

$$(c_{1j}) = Q'_0[\beta-1][1+i_j[1-\tau]] = \frac{[\beta-1][[d_{1j}[1-\tau]+P_{1j}[1-g\tau]+\tau P_0[k[1-g]+g]]}{\beta} \quad (17)$$

Since $c_1 > 0$, one arrives at an important result: $(1/\beta) < 1$, i.e. leverage used by the taxable investor is less than 100%.

Case 2: Second corner solution $s' = 1$, i.e. Non-taxable investor owns 100% of all business equity.

The basic condition needed here is:

$$P_0[k(1-g)+g+i_j] < [d_{1j}+P_{1j}g] \quad (12)$$

i.e. Tax benefits are less than tax liabilities in each state of the economy next period.

The price P_0 can be determined by solving the following equation iteratively with a computer.

$$P_0 = \{\frac{w_0[\gamma^{[1/\alpha]}[E_0(d_1 + P_1)(1-\tau) + \tau P_0]^{[1-\alpha]}]^{[1/\alpha]}]}{[P_0]^{[1-\alpha][1/\alpha]} + [\gamma^{[1/\alpha]} + [E_0[d_1 + P_1[1-\tau] + \tau P_0]^{[1-\alpha]}]^{[1/\alpha]}]]}\}$$

$$+\{\frac{w_0[\gamma^{[1/\alpha]}[E_0(d_1 + P_1)^{[1-\alpha]}]^{[1/\alpha]}]}{[P_0]^{[1-\alpha][1/\alpha]} + [\gamma^{[1/\alpha]} + [E_0(d_1 + P_1)^{[1-\alpha]}]^{[1/\alpha]}]]}\} \quad (13')$$

The interest rate i_j in state j of the economy can be evaluated as follows:

$$[1 + j_j] = (\frac{[d_{1j} + P_{1j}]}{P_0}\} \quad (14')$$

The optimal loan amount Q_0 can be evaluated as:

$$Q_0 = (\frac{[w_0[\gamma[E_0[1+i[1-\tau]]^{[1-\alpha]}]^{[1/\alpha]}]]]}{[1+[\gamma[E_0[1+i[1-\tau]]^{[1-\alpha]}]^{[1/\alpha]}]}) \quad (15')$$

The consumption levels are given by:

$$c'_0 = w_0 + Q_0 - P_0;\ c_0 = w_0 - Q_0 \quad (16')$$

$$(c'_{1j}) = Q_0[\beta'-1][1+i_j] = \frac{[\beta'-1][d_{1j} + P_{1j}]}{\beta'}$$

, where $(1/\beta')$ is the debt to asset ratio (Q_0/P_0); and

$$(c_{1j}) = Q_0[1 + i_j[1-\tau]] = \frac{[d_{1j} + P_{1j}][1-\tau] + \tau P}{\beta'} \quad (17')$$

Since $c'_1 > 0$, one again arrives at the same result: $(1/\beta') < 1$, i.e. leverage used by the non-taxable investor is less than 100%.

Case 3: Interior solution, i.e. where both taxable as well as non-taxable investors own fractional shares of business equity.
In general an interior solution does not exist except for the two sub-cases indicated below.

The reason for this is that the equilibrium condition here requires that:

$$P_0 - D_0 = P_{1j} \tag{13''}$$

i.e. Adjusted basis of the assets of the business in the next period (i.e. book value) equals the price of the business in every state j of the economy in the next time period.

This is generally not true except when the future state P_{1j} is known with certainty, or when the effective capital gains rate is equal to one.

Subcase (a) Next period outcome is known with certainty:

The price $P_0 = (\frac{[P_1]}{1-k}),\ \forall\ g<1$ (13ic)

$$\Rightarrow P_1 - (P_0 - D_0) = 0,\ \forall\ g<1$$

This equation implies that the future value of the business is equal to the adjusted basis of the business. As long as the capital gains tax on appreciation is less than that on operating income, i.e. g<1, the business owners will not pay any capital gains tax. The above feature of equity, coupled with the fact that in an interior solution tax benefits offset tax losses is appealing to taxable investors.

The interest rate $i = (\frac{d_1[1-k] - kP_1}{P_1})$ (14ic)

The consumption levels are given as:

$$c'_0 = \{\frac{w_0}{1+[\zeta']^{[1/\alpha]}}\};\ c_0\{\frac{w_0}{1+[\zeta']^{[1/\alpha]}}\}, \tag{16ic}$$

$$c'_1 = \{\frac{w_0[\zeta']^{[1/\alpha]}[d_1+P_1]}{P_0[1+[\zeta']^{[1/\alpha]}]}\};\ \text{and}$$

$$(c_1) = \{\frac{w_0[\zeta]^{[1/\alpha]}[(d_1+P_1)(1-\tau)+\tau P_0]}{P_0[1+[\zeta]^{[1/\alpha]}]}\}$$, where ζ, and ζ' are defined as: (17ic)

$$\zeta = \gamma\{\frac{[d_1(1-\tau)+P_1(1-g\tau)+\tau P_0(k(1-g)+g)]}{P_0}\}^{[1-\alpha}\ ,\ \text{and}$$

$$\zeta' = \gamma\{\frac{[d_1+P_1]}{P_0}\}^{(1-\alpha)} \tag{18ic}$$

In this subcase, s and s' are indeterminate i.e. $s\varepsilon\ [0,1]$ and $s' = 1-s$. The reason for this is that the investors are indifferent between equity and participating loan.

Here the optimal funds loaned: $Q'_0 = w_0 - c'_0 - s'P_0$ (15ic)

Subcase (b) The effective capital gains tax g = 1.

The price P_0 is solved for by iterating the following equation with a computer:

The price $P_0 = w_0[2 - (\frac{1}{[1+[\zeta]^{[1/\alpha]}}) - (\frac{1}{1+[\zeta']^{[1/\alpha]}})]$, where ζ, and ζ' are evaluated by substituting the value of $g = 1$ in equations (18ic) above. (13ig)

The interest rate: $i_j = (\frac{[d_{1j} + P_{1j}] - P_0}{P_0})$ (14ig)

The consumption levels are given as:

$$c'_0 = (\frac{w_0}{[1+[\zeta']^{[1/\alpha]}]}) \; ; \; c_0 = (\frac{w_0}{[1+[\zeta]^{[1/\alpha]}]}), \tag{16ig}$$

$$c'_{1j} = (\frac{w_0[\zeta']^{[1/\alpha]}[d_{1j} + P_{1j}]}{[P_0][1+[\zeta']^{[1/\alpha]}]}) \; ; \text{ and}$$

$$c_{1j} = (\frac{w_0[\zeta]^{[1/\alpha]}[(d_{1j} + P_{1j})(1-\tau) + \tau P_0]}{[P_0][1+[\zeta]^{[1/\alpha]}]}) \; ; \tag{17ig}$$

Thus from this analysis one concludes that, in general, the equilibrium solution in case of this type of participating loans is a corner solution, depending on whether the tax regime is conductive or is restrictive to business.

III. PROPERTIES OF THE EQUILIBRIUM CONDITIONS

There are some very important properties of the model proved in the Appendix. They are described below.

PROPOSITION 1: Mathematically, a participating term certificate is defined as that investment vehicle where the interest rate i_j in state j of the economy is as follows:

$$i_j = \{(\frac{[d_{1j}[1-\tau] + P_{1j}[1-g\tau]) - \tau P_0[1-g][1-k]}{P_0[1-\tau]}) - 1\} \cdot$$

where the taxable investor owns all the business equity, and

$i_j = \{(\frac{[d_{1j} + P_{1j}]}{P_0}) - 1\}$, where the non-taxable investor owns all the business equity. (19)

PROPOSITION 2: A risk averse investor with a C.R.R.A. utility, will always use leverage less than 100% of the value of business.

For example in the case of an investor with Logarithmic utility, a maximum loan to value rate of 50% is observed in both the corners, as illustrated in the Appendix.

PROPOSITION 3: The first corner solution can be regarded as a tax shelter, i.e. as an investment vehicle where tax benefits exceed tax liabilities in every state of the economy next period, i.e.

$P_0\,[k\,(1-g) + g + i] > [d_1 + P_1 g]$.

This property is important because it gives us an idea of a basic property of the corner solution where the taxable investor is dominant, i.e. is able to outbid the non-taxable investors.

PROPOSITION 4: Price of business venture in the first corner solution, i.e. where the taxable investor owns 100% of the business equity, falls with a decrease in marginal tax rate.

This property of the first corner solution presented by the above proposition is really unique, because for most assets, a drop in tax rates will result in an increase in its price.

PROPOSITION 5: The interest rates on participating term certificates from the first solution to the second corner solution are in a decreasing order i.e.

$E_0\,[1 + i]_{\text{First corner solution}} > E_0\,[1 + i]_{\text{Interior}} > E_0\,[1 + i]_{\text{Second corner solution}},$
for all $g < 1$ (20)

This gives us an idea of the magnitude of the participating interest rate as we move from one corner solution to the other. In the first corner solution, the lender can extract a high interest rate from the borrower and still get away with it. In the interior solution, both lender and borrower are indifferent towards investing in loans or equity. That is why the interest rate is lower than before. In the second corner solution, the taxable investor faces excessive taxes on the business investment. So the non-taxable investor can get away by borrowing at a lower expected rate.

PROPOSITION 6: As the effective capital gains rate approaches 100%, the solution tends to become an interior one, where both taxable and non-taxable investors own a fraction of business in the economy.

This implies that if the effective capital gains rate is the same as the marginal tax on ordinary income, then there is only one solution i.e. the interior.

IV. CONCLUSION:

This study illustrates a quasi equity debt along with the properties of the equilibrium conditions. The proposed financing instrument as defined in Proposition 1 is a unique investment vehicle initiated recently in Pakistan. This instrument is also used to a limited extent in the area of real estate financing as explained by Ebrahim and Hasan[19]. The equilibrium solution here basically depends on the tax environment. If equity is preferentially taxed, one will observe a corner solution where the taxable investor owns all the equity in the enterprise. The non-taxable entity such as a pension fund would be able to extract not only part of the economic benefits but also part of the tax benefits. If equity is penalized by the tax regime, then the ownership of the enterprise will be in the hands of the non-taxable entity. In special circumstances one can also observe an interior solution when the next period is known with certainty or when capital gains is taxed at the same rate as business income.

In the U.S.A. practitioners like Fahoury recognize the advantages of participating loans[20]. That is why Pension Funds, Real Estate Investment Trusts, Real Estate Limited partnerships, and Mortgage-Backed Bond Buyers invest in a type of participating mortgage similar to the one described in this paper, along with those based on some combination of fixed interest and equity participation[21]. Pensions and Investment Age (September 16, 1991) reported that, as of June 30, 1991, the fifty largest managers of tax-exempt assets had $101.17 billion billion in real estate equity and $14.86 billion in hybrid mortgages, which include participating and convertible mortgages[22]. Thus hybrid mortgages comprise approximately 14.7 percent of the equity held by these institutions.

The participating term loan is a recent innovation in the area of asset backed securities. The revolution of security design and optimal financing in the West has evolved from the classic work of Allen and Gale[23]. There have been special conferences on this subject. One was sponsored jointly by the Islamic Development Bank and the Ministry of Finance of Malaysia in Jeddah in 1990. Another was conducted by the New Jersey Center for Financial Services at Rutgers University in 1993. As society becomes more aware of the opportunities in equity/profit sharing, vehicles involving participation will gain popularity.

NOTES:

1. D.M. Qureshi, "The Role of Shari'ah-Based Financial Instrument in a Muslim Country," in *Developing a System of Financial Instruments*, ed. M. Ariff and M. A. Mannan (Saudi Arabia: IRTI, Islamic Development Bank, 1990.), 49-67.
2. M. S. Ebrahim and Z. Hasan, "Mortgage Financing for Muslim-Americans" *American Journal of Islamic Social Sciences* 9, no. 2. (1993): 72-87.
3. See A. A. Islahi, *Economic Concepts of Ibn Taimiyah* (Leicester, U.K.: Islamic Foundation, 1988), 205-206.
4. The prohibition on interest-based transactions is based on the Qur'an. For example, 2:275, the Holy Qur'an states roughly translated, "Those who devour usury shall be raised (on the Day of Judgment) like those driven mad by the touch of the Devil. This is because they say 'trade is like usury'. But God has permitted trade and forbidden usury. Hence those who have received the admonitian from their Lord and desist may keep that which has already passed, their case being entrusted to God, but those who revert (to usury) will be the inhabitants of the fire (of Hell) to abide therein forever." Interest-based transactions have been forbidden not only by the Qur'an, but also by the scriputres of the Prophets preceding Muhammad, such as the Old Testament and the Gospel According to Luke, as mentioned by Yosuf al Qardawi, *The Lawful and Prohibited in Islam* 20th ed. (Indianapolis, IN: American Trust Publications, 1984).
5. See M. N. Siddiqi, "Some Economic Aspects of *Muḍarabah*" *Review of Islamic Economics* 1, (2):21.
6. R. Mehra and E. Prescott, "The Equity Premium: A Puzzle" *Journal of Monetary Economics* is (1985):145-65.
7. A. Abel, "The Equity Premium Puzzle," *Federal Reserve Bank of Philadelphia Business Review* (Sept.-Oct. 1991):3-14.
8. J. J. Siegel, "The Equity Premium: Stock and Bond Returns Since 1802", *Financial Analyst Journal* (Jan.-Feb. 1992): 28-38.
9. See M. Weitzman, *The Shave Economy*, Cambridge, MA: Harvard University Press, 1984. There are other Western economists, such as H. C. Simon, *Economic Policy for a Free Society*, (Chicago: University of Chicago Press, 1948) and C. P. Kindleberger, "Bank Failures: The 1930's and the 1980's "(paper presented at the conference on the earch for Financial Stability: The Past Fifty Years, San Francisco 1985) who have suggested that the practice of Western banks paying depositor a fixed interest rate regardless of the success of the banks is a major cause for failure in recent years. They have proposed modifying the present system to one similar to a profit-and-loss (i.e. an Islamic) one. For further discussion on banking without interest, see M. S. Khan, "Islamic Interest Free Banking: A Theoretical Analysis," *International Monetary Fund Staff Paper* 33 (March 1986): 1-27 and A. Mirakhor, "The Progress of Islamic Banking: The Case of Iran and Pakistan," in *Islamic Law and Finance*, edited by Chibli Mallat (Boston: Graham and Troutman, 1988), 91-115.
10. M. Harris and A. Raviv, "Financial Contracting Theory," (unpublished manuscript, Dept. of Finance, Kellogg Graduate School of Management, Northwestern University).
11. The reason for using this is that general equilibrium models have a strong following in the academic and policy communities. J. J. Whalley, "Lessons from General Equilibrium Models," in *Uneasy Compromise*, edited by H. Aaron, H. Galper and J. Pechman (Washington, DC: The Brookings Institute, 1988), 15-50, contains a summary of the different general equilibrium models.
12. This is similar to the analysis of H. DeAngelo and R. W. Masulis, "Optimal Capital Structure under Corporate and Personal Taxation," *Journal of Financial Economics* 8 (1980): 3-30, with the exception of recapturing of depreciation as capital gains at the liquidating stage. In this study, effective capital gains rate (ECGR), denoted as

'g', is assumed to be less than 1 unless noted otherwise. The reason for this is because in the real world it is ultimately the investor who decides when to dispose of the asset and realize the capital gains. This implies that any capital appreciation will be subjected to a tax rate of 'gt' which is less than 't'. In the area of public finance, there is considerable debate on the exact definition of ECGR. For further discusison of this issue, see C. Coyne, F. J. Fabozzi and U. Yaari, "Taxation of Capital Gains with Deferred Realization, "*National Tax Journal* 42, no. 4 (1989): 475-485 and "Effective Capital Gains Tax Rates: A Reply" *National Tax Journal* 44, no 1 (1991): 105-107; D. W. Kiefer, "Effective Capital Gains Tax Rates: A Comment on Coyne, Fabozzi and Yaari," *National Tax Journal* 44, no. 1 (1991): 101-104; and Y. Balcer and K. L. Judd, "Effects of Capital Gains Taxation on Life-Cycle Investment and Portfolio Management," *Journal of Finance* 42 (1987): 743-761.

13. It should be noted that this is a simplifying assumption. The main idea behind this is to have a business for a pair of taxable and nontaxable agents in the economy. If this assumption were to be modified, then we would need to consider the businesses and the agents at a macro-level rather than at a micro-level.
14. In a corner solution, one agent would own the business in its entirety, while the other would invest in the participating term certificate. In an interior solution, both agents own a fraction of the business in the economy. It should be noted from intuition that since the participating term certificate is a quasi-equity vehicle, the solution should predominantly be a corner solution.
15. Please note that the model assumes only a single level of taxation. The widely prevalent double taxation of corporations as observed in the U.S.A. is disregarded for simplicity.
16. See note 2.
17. It should be noted that all proofs and derivations are documented in the Appendix which will be provided upon request.
18. See M. Blume and I. Friend, "The Asset Structure of Individual Portfolios and Some Implications for Utility Functions," *Journal of Finance* 10, No. 2 (1975) 585-603; and R. J. Hodrick, "U.S. International Capital Flaws: Perspectives from Rational Maximizing Models," *National Bureau of Economic Research*, Reprint No. 1307 (1987).
19. See note 2.
20. Fahoury notes that:
    "Investors looking to mix the fixed-income characteristics of conventional mortgages with the growth potential of an equity program should consider partnerships focusing on participating mortgages or a combination equity/mortgage loan program. About 70% of all currently available mortgage loan programs offer some growth potential. Participating mortgage loan programs provide the potential for growth via participation (sometimes called 'equity kickers') in increases in rental income and property appreciation."
21. In the U.S.A., this instrument has to be structed very carefully. The reason for this is that the Internal Revenue Service (IRS) will otherwise view it as a joint venture and disallow the tax deductions. Thus the IRS is responsible for impeding the growth of pure participating vehicles.
22. Convertible mortgages also involve fixed interest and are, therefore, not allowed by Islamic law.
23. F. Allen and D. Gale, "Optimal Security Design." *Review of Financial Studies* 1, no. 3 (1989): 229-363.

MUSLIM ATTITUDES TOWARD ISLAMIC FINANCE: A REVIEW LECTURE AND AN AMERICAN SURVEY

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Rhetoric suggests a need for Islamic banks in the United States, but little empirical evidence or social analysis support such proposals. This author argues as well that Islamic banks can alleviate Muslim community finance gaps but that American-Muslims' attitudes toward Islamic finance must be favorable for these enterprises to succeed. In this study, Arab-American Muslims indicate that Islamic finance is likely to succeed in the U.S., but only if banks are willing to address issues about security, insurance and ethnic diversity.

Rhetoric about Islamic economics is familiar, but academic research and practical application is lacking. This has left specialists in a quandary about the effectiveness of Islamic banks. Some scholars, like Wilson, claim Islamic financial movements are "undoubtedly" and "extremely" impressive.[1] The majority, however, have found that Islamic banks face significant social barriers.[2] Still others also argue that most Islamic banks' generally poor performance is caused by the weak economic and regulatory structures found in developing countries. Berzeg, Dahmash, Erol, Nellis, Khan, Ogan, Sarayrah, Qarish, El-Bdour, and Wright, among others, have found loose accounting regulations, low financial sophistication and inefficient tax policies have impeded the development of all capital investment in Arab countries.[3]

Even so, attention to opportunities for Islamic finance has grown dramatically in recent years, and governments and international NGOs are now studying Islamic economics agendas. The World Bank, the International Monetary Fund, U.S.A.I.D, the Ford Foundation and the Council for the National Interest have each organized conferences or panels on Islamic economics, or they have supported research on opportunities for Islamic banks. In addition, American Muslim community planners have proposed that Islamic banks could effectively fund minority community development programs in the United States.[4]

However, there are some problems with existing proposals. First, they generally assume that the structural problems inherent to developing economies are removed in the U.S. This is not entirely true, especially when concerns about depositor security and insurance are raised. Second, government regulation will not allow full service banks, Islamic or otherwise, to operate without carrying accounts at the Federal Reserve. Third, they fail to see that many of the social factors that impede Islamic lending in the East will also be present in the West. These include ethnically motivated discrimination, the demand for deposit security, and preferences for informal sector finance.

These situations raise several questions. Can Islamic banks be organized in the Unites States? If so, will the social impediments that retard Islamic banking in the Middle and Far East be present in the United States? Will American Muslims support Islamic banking if it is made available? Little research has been done that could answer these questions. However, groups like the International Institute for Islamic Thought, through conferences like this one on "The Role of Public and Private Sectors in Economic Development in Islamic Perspective," have challenged specialists in Islamic economics to investigate more thoroughly both the technical possibilities and the psychological barriers that face planners in Muslim communities.

I hope to extend that challenge with the information presented in this paper. In it I will investigate the attitudinal issues that face planners wishing to develop Islamic banks in the United States. First, I review a study by Steven Abdulkader on some of the attitudinal barriers that-face Islamic finance in the U.S. Second, I outline the results of a current and on-going study about the attitudes of Muslim professionals toward Islamic banking. Abdelkader's conclusions that apathy, inter-community divisions, and misinformation are key barriers to Islamic banking are supported here. However, my research also reveals that an inordinately high number of Arab-American Muslims are willing to support the establishment of an Islamic bank in their areas.

BACKGROUND RESEARCH

Very little research has been done on the attitudes of American Muslims toward Islamic finance. According to Abdulkader, publisher of The American Journal of Islamic Finance (AIF), only two studies exist on this topic. The first is a survey of imams who attended the 1991 National Islamic Conference.[5] The second study was titled the "1992 North American Survey for Islamic Finance."[6] Although under-subscribed, these surveys give insight into attitudinal barriers that face American Islamic banks.

The first survey was a poll taken of imams who were attending a major Muslim convention. Unfortunately, this survey did not generate a large enough response rate to yield statistically significant results. Even so, its results are telling, because the imams did not demonstrate a practical commitment to Islamic finance. Their responses raise much doubt about the feasibility of developing a network of Islamic banks in the United States.

The better of Abdulkader's studies is the "1992 North American Survey." Designed to investigate "Muslims' . . . resources and attitudes," the North American Survey was distributed to over 30,000 homes. 161 responses were returned, forty-seven percent from immigrant Muslim readers of AJIF, forty-two percent were from African-American readers of *Muslim Journal*, and eleven percent came from subscribers to American Muslim.

The most notable statistic presented concerns the low level of knowledge about Islamic financial institutions. California provided the highest number of respondents, but of this group only six percent were aware of the Los Angeles-based Muslim Savings and Investment Company. The Amana Fund, was known to only 2.5 percent of the respondents as investors. Ansar Capital Management of Indiana and Ilahi Investment of Detroit were patronized by 1.24 percent of the respondents. No other Islamic financial groups received more than a one percent level of recognition.

Likewise, the respondents did not show a high level of financial sophistication. Sixty-five percent of the respondents have accounts at interest-based banks, another twenty-nine percent in credit unions and twenty percent held accounts at savings and loan associations (multiple responses were allowed). Twenty-four percent and eighteen percent said their financial need priorities were checking and savings accounts. However, "an astounding 7% reported that their primary savings location was at home" ninety percent of respondents did not insure their property.

When asked about the debt instruments they used, fifty-four percent held mortgages and eleven percent had second mortgages. For consumer financing, thirty-five percent held automobile loans, forty-five percent own credit cards, thirty-five percent had taken loans when purchasing an automobile, and eleven percent used consumer credit loans to purchase major household products. For commercial credit, only four percent used small business loans. Twenty-two percent of the respondents felt that the small business finance-gap was their most pressing financial problem.

Three things are identified through these responses. First, Muslims in America are using riba-bearing instruments. Second, this may indicate a severe finance gap in the American Muslim community. Third, the use of commercial banks is prevalent. One could conclude that interest-bearing loan instruments are more socially acceptable than not among American Muslims. This is supported by other responses as well. When asked if they wanted to use a riba-free investment alternative, "one-third want it, onethird don't want it, and one-third don't care."[7] Fifty percent agreed interest presented a moral dilemma, and sixty-two percent wanted an Islamic alternative, but respondents were also "deeply engaged with interest, as reported in the questions relating to debt." And, fourteen percent said they would not use Islamic finance even if it were made available.

Abdulkader also claims that inter-ethnic prejudice harms the chances of Islamic banks' surviving in America. He asserts that, "anyone who has been involved in the management or support of an Islamic Center is aware of the great ethnic divides between Arab, South Asian, Malaysian, Iranian, African-American and all other Muslims." He suggest that ethnic prejudice caused the downfall of Islamic banks in Toronto.[8]

THE COUNCIL FOR THE NATIONAL INTEREST SURVEY

The Council for the National Interests (CNI) is an advocacy group that was founded by Congressman Paul Findley because of his concerns about the pro-Israeli lobby and its effects on American foreign policies toward Arab and other predominantly Muslim states. In 1992 CNI decided to pursue a special survey that would help it better serve its Muslim-American members. The group recognized two agenda for supporting this study. The first is that CNI endeavors to strengthen the voice of groups that want the U.S. to employ peace-oriented diplomacy in the Middle East. These efforts have led us to work with a number of Islamic groups who have an interest in changing U.S. policies toward the Muslim states. Secondly, CNI realizes that prejudice against Muslim Americans and Muslim immigrants to the U.S. has hampered these groups' abilities to speak out effectively against various government policies. Therefore, CNI wants to alleviate discrimination against Muslim minority communities, whose voices on foreign policies need to be stronger. CNI is possibly interested in supporting legislation that will facilitate Islamic banking.

The key question is to determine the real level of support American-Muslims would provide to an Islamic bank. Abdulkader's study was important in forming the CNI questionnaire on Muslim attitudes about Islamic finance and the ways Islamic banks could help strengthen the Muslim community. An entire section was devoted to this issue. The questionnaire emphasized the economic impact of discrimination because CNI wanted to to determine the types of prejudice Muslim professionals have experienced and how these problems can be addressed at the federal level.[9]

A three part questionnaire was designed to study a) the demographic characteristics of Arab-Americans, b) the economic impact of prejudice against Arab-Americans and Arab immigrants living in the U.S., and c) the attitudes of American and Arab Muslims toward Islamic Finance. The first part of the questionnaire collected segmental data from these population groups. The second section is directed at people who own businesses and who want to raise the categorical status of Arab immigrants and Arab-Americans at the Department of Commerce and the Small Business Administration (SBA). The third section was written for Muslim members to test their attitudes about establishing Islamic banks in the US.

To define the sample population, the CNI mailing list was reviewed for names that were Arab in origin. 1892 surveys were mailed to members of wham ninety percent were Muslim and 289 or 15.93 percent responded of that number, approximately eighty percent of the group trace their national origin or ancestry to Egypt, Palestine, Lebanon, or Syria. Approximately sixty percent of respondents were Muslim. While a long-term analysis project is under way, this paper only reveals respondents' attitudes toward Islamic financial institutions.

I should note that my first attempt was not to study only Arab-American Muslims. However, Muslim councils across the U.S. expressed reluctance to participate in this pròect. This made it necessary to work the ethnic and political networks I had developed in Washington, D.C. This led me to combine research on Islamic finance with CNI's agenda for containing smear campaigns against Arabs, Arab-Americans, and Muslims. They recognize these campaigns are against the U.S. national interests.[10]

ATTITUDES OF CNI'S MUSLIM MEMBERS TOWARD ISLAMIC FINANCE

The responses received from the survey revealed a keen interest in Islamic banks among the sample group. 289 people completed the fifty question survey, 135 were Muslim, 125 Christian and 29 indicated non-denominational faith. The following discussion concerns only responses to the section of the questionnaire that pertained to Muslim respondents.

When asked if they felt finance-gaps exist in the American Muslim community that prevent the expansion of Muslim-owned businesses, sixty-eight percent of those responding (114) said yes. It is clear, however, that these respondents had not contacted an Islamic lender. In a follow-up question, sixty-seven percent were not aware of any Islamic financial institution in the U.S. This is consistent with Abdulkader's suggestion that American Muslims lack knowledge about Islamic lenders.

The next two questions related to whether or not the respondents feel the Muslim community in their areas would provide enough support for the long-term operations of an Islamic bank. Fifty-four percent of the 129 people answering this question said they would. As a percentage of the total number of Muslim respondents, fifty-one percent said their community would support an Islamic bank, forty-four percent said they would not, and only 4.4 percent seemed indifferent. These figures are substantially higher than the numbers generated in the 1992 North American Survey and may indicate that American Muslims are open to the concept of Islamic finance. Or, it could mean that American Muslims would support ethnic and not religious banks.

Question thirty-nine asked those who said they did not believe the community would support an Islamlc bank why they thought so. Thirty-seven percent said the local community was not large enough, twenty-two percent said Muslims did not understood Islamic banking, sixteen percent said the population was not wealthy enough, thirteen percent said the community was too divided along ethnic lines, nine percent felt Islamic banks were too risky, and three percent said they were too much in the habit of using a conventional bank and would not change. These responses seem to support Abdulkader's finding that ignorance about Islamic financial contracts and their risks would discourage people from using Islamic finance. These answers also seem to support his statement that Muslims' commitments are two often divided along ethnic lines. The idea that people are risk averse and demand deposit security is also supported. Of the 108 responses, sixty-seven percent said they would require an Islamic bank to provide deposit insurance before opening an account.

It is worth noting that fifty-one percent support for Islamic banks is the highest level found in any attitudinal studies in the Muslim Near East. Positive attitudes were not found in surveys done in Jordan, Pakistan, and Saudi Arabia. In the West, Abdulkader's survey and another in the United Kingdom also found that Muslims did not fully support the idea of Islamic banking. Even in Malaysia, where significantly more support was found, only thirty percent of Bank Islam's customers used it exclusively. The Malaysian experience may be the better model for comparisons to the United States.

When asked what percentage of their liquid assets respondents would place in a local Islamic bank, most indicated that they would partially support the bank. Only fourteen percent said they would use the bank zero percent,and only thirty-one percent said twenty percent of the time or less. However, fourteen percent indicated that they would place forty percent of their assets, eleven percent chose sixty percent, eight percent said eighty percent. Twenty-two percent of the respondents said they would use an Islamic bank exclusively. Again, this is a much stronger level of support than has been found in studies.

The support is higher still for the use of Islamic forms of credit. Thirty-five percent of respondents indicated they would use Islamic contracts 100 percent of the time, fifty-nine percent said they would use an Islamic bank to fund purchases sixty percent of the time or more. For business-oriented finance, members said they would chose an Islamic bank by a thirty-six percent margin and venture capital by an eighteen percent margin. Only fifteen percent of the respondents said they would not borrow from an Islamic bank for consumer goods purchase, and only twenty-percent said they would not use Islamic finance to fund expansion projects. This support is most likely a reaction to existing finance-gaps in the community.

It could also be true that Americans and immigrants to the United States understand the premise of equity investment more readily than do people in developing Muslim countries. When asked about their willingness to expand their businesses through profit-sharing arrangements, sixty-eight percent said they would accept financing through participatory contracts, and fifty-two percent said they would use Islamic leases. However, ninety-three percent of the respondents currently maintain accounts at conventional banks. As was the case in Abdulkader's survey, seven percent of the respondents apparently do not institutionalize their savings.

CONCLUSION WITH A RESEARCH AGENDA

These results are presented here with minimal analysis, and readers should expect to see much more about this study in the future. Still, these initial results provide a reason for optimism, because respondents show more interest in Islamic banking than has been found elsewhere. Moreover, this sample group is more than likely at the higher end of the economic pay-scale, which will allow them to better organize the beginning operations of an Islamic bank. In addition, the fact that these respondents were professionals and business owners implies that there will be a continuing market for profit-sharing investment contracts.

However, it is obvious that Islamic banking networks will have to be preceded by education and training in the Muslim community. Misconceptions about the nature of Islamic economics and negative attitudes about Islamic finance present the two major impediments to developing sustainable bank operations. Interethnic rifts inside the Muslim community must also be overcome.

As I stated in my introduction, I want to extend the challenge that has been set forth by IIIT through this conference. Based on the CNI survey results, which are positive but which are far from being conclusive, I want this group to pursue further research on:

1) the attitudes of all Muslim groups in America;
2) ways to develop the banking services demanded by the community through an Islamic perspective;
3) methods for uniting Muslims of different ethnic backgrounds in order to support Islamic facilities;
4) political barriers that present prejudice against Muslims

Scholars of Islamic economics need to pursue these lines of research because it will enable us to define the limits and opportunities Islamic banking can have in American-Muslim communities. This research will lead to the development of models for the roles public and private sectors should play in Islamic economic development. Most importantly, this research will help to develop the institutions that can raise the wealth of the American Muslim minority community. This will cause basic economic expansion, as the Muslim community grows and prospers.[11]

NOTES:

1. Rodney Wilson. *Islamic Financial Markets*, Vol. 1 and 3 (London: Routledge, 1990).
2. See Bandar al Hajjar, JohnR. Presley and J. W. Wright "Structural and Attitudinal Impediments to Effective Use of Islamic Capital Distribution Instruments in the Saudi Arabian Economy," in *Economic Growth and Human Resource Develpment in Islamic Perspective*. (Herndon, VA: The International Institute for Islamic Thought, 1993).
3. Korhan Berzeg. "Comparative Measures of Average Risk and Return for Major Sectors of the Saudi Arabian Economy," Address to the International Academy of Business Disciplines, Arlington, VA, 1992; Naim Dahmash. "Public Auditing Developments in the Arab States: A Comparative Study," *International Journal of Accounting Education and Research* 18, no. 1 (1986): 89-114; Cengiz Erol and Radi El-Bdour, "An Empirical Investigation of Risk of Stocks Traded on the Less Developed Capital Market: Jordan as a Case Study." *Abhath al Yarmouk* 6, no. 3 (1990): 25-44; John R. Nellis. "Decentralization and Local Public Finance in *Tunisia," Public Administration and Development* 5, no. 3 (1985): 187-204; Muhammad Akram Khan. "Implementing Performance Auditing in Pakistan," *International Journal of Auditing* (Oct. 1986): 15-17; Pekin Ogan. "Turkish Accountancy: An Assessment of its Effectiveness and Recommendations for Improvements," *International Journal of Accounting* (1979): 133-154; Yasim Sarayrah and Mahmoud Qavish. *The Role Performance of the Bureau of Audit of Jordan* (Amman: The Atab Institute for Bank Studies, 1990); Redi El-Bdoor. "Problems of Research in Islamic Economics, with Priorities and Application," *Proc. of a Symposium on Problems in Research in Islamic Economics* (Amman and Jeddah: Islamic Research and Training Institute, and the Islamic Development Banks, 1986); and J. W. Wright." Accounting in Saudi Arabia: Imperative Questions for the 1990's," *Proceedings: The 1992 British Society of Middle Eastern Studies Conference*, St. Andrews, 1992; J. W. Wright.Book Review: Peter W. Wilson, "A Question of Interest: The Paralysis of Saudi Banking," *Middle Eastern Studies Association Bulletin* (1993); J.W. Wright. "American Trade and Islamic Economics in the Occupied Territories," address to the Department of Near Eastern Civilizations, Yale University, New Haven, CT, 1994; J.W. Wright. "Can Islamic Economics facilitate International Trade?" address to the Department of Econoics, Smith College, Newhampton, MA, 1994; J.W. Wright. "Trade with the Arab-Muslim States," panel discussion given at the Rutgers University Middle East Studies Program, West Brunswick, NJ, 1994; J.W. Wright. "New Research on Muslim-American Attitudes toward Islamic Finance, address to the 1994 Naitonal Islamic Conference, Washington, DC 1994; J.W. Wright. "Politics and Economic Policy in the Middle East for the 1990s," Panel Chair and Discussant, Eastern Economic Association Conference, Washington, DC 1993.
4. Abdulkader, Steven. Commentary to the Islamic Home Finance Committee, National Islamic Convention. Washington, DC 1994.
5. Abdulkader, Steven, "What is the Score?" *The Message International* 25 (Dec. 1992).
6. Abdulkader, Steven, "Summary Analysis: 1992 North American Survey for Islamic Finance, *The American Journal of Islamic Finance* 3, no. 5 (March/April 1993): 5-8.
7. Ibid.
8. Ibid.
9. Moves to contain the influence of Arab-Americans predate the development of the Israeli PAC system that currently dominates Washington politics. [See David J. Sadd, "Arab-American Grievances," *Foreign Policy* 60 (Fall, 1989): 17-29]. Overt discrimination by the government against Arab-Americans was clear during the

Nixon administration, when the president ordered illegal investigations against Arab ethnics. [See Elain Hagopian, "Minority Rights in a Nation-State: The Nixon Administration's Campaign Against Arab-Americans," *Journal of Palestine Studies* 1-2 (Autumn 1975/winter 1976): 97-116]. In the media during that period and later, Arab-Americans bore the Brunt of anti-Muslim commentary and polling biases. [See Seymour Lipset and William Schneider, "Carter vs. Israel: What the Poles Reveal," *Commentary* 64, no. 5 (Nov. 1977): 21-29]. Since the Nixon administration, Arab-Americans have been increasingly excloded from the government's decision making process on both domestic and international issues. For example, the number of Arab-Americans working for the federal government fell nearly fifty percent between 1980 and 1990. CNI feels the inclusion of more Arab-Americans and American Muslims into the decision making process would yield more balanced U.S. policies toward the Middle East region.

10. Shaw J. Dallal, "Islam and the U.S. National Interests" *The Link* 26, no. 1 (Feb-Mar. 1993): 1-11.
11. The author would like to thank Christian E. Graham for his assistance with the research that led to this paper. John Presley has given me much advice. Jean Simonian and an ananymous reader of the articles deserve credit for their helpful editorial comments. In addition, he would like to thank the Faculty Enhancement Grant Committee of Washington College, Chestertain, Md. for providing financial assistance for this research. Paul Findley and the staff at the Council for the National INterest also deserve thanks because of their consistent support of my work and research.

THE ROLE OF PUBLIC AND PRIVATE SECTORS IN ISLAMIZATION OF THE ECONOMY OF IRAN

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ABSTRACT

The Islamic Republic of Iran was brought into existence by the 1979 Revolution, the purpose of which was to establish an Islamic state and society. In the last 15 years of its existence, Iran has attempted to Islamize all spheres of its society, including its economy.

The role of public and private sectors in economic development in the process of Islamization has been the center of debate and controversy in the Iranian parliament as well as among Islamic scholars and economists. Divergent views have resulted in alternative development strategies based on Islamic interpretation of varying roles of public and private sectors.

The purpose of this study is to analyze these alternative strategies from an Islamic perspective and determine whether the impact of selected strategy on the economy of Iran satisfies the goals of Islamization.

The study finds that Iran's strategy of heavy reliance on central planning and the public sector to promote economic development has failed to achieve the goals of Islamization of its economy. The study suggests the need for balance between the growth of public and private sectors. The paper also emphasizes the need for new tools of Islamic economic policy, in addition to imposition of *zakah* and abolition of interest, in order to achieve the goals of Islamization.

The Role of Public and Private Sectors in Islamization of the Economy of Iran

Since its establishment after the 1979 revolution, the Islamic Republic of Iran made its prime objective to Islamize all spheres of its society including its economy. Iran's journey toward Islamization has continued for the last fifteen years of its existence. Even though this period has been marred by revolution, war and economic crisis, it still makes Iran an ideal case study for a number of reasons.

First, Iran is the largest country in the Middle East which was brought into existence as the 'Islamic Republic' by a revolutionary mass movement with a clear mandate to establish an Islamic state and a society. Second, Iran has a well developed modern sector with considerable urbanization and industrialization, thus having implications for Islamization of the contemporary modern economies of the approaching 21st century. Finally, the role of private and public sectors has been the center of debate and controversy in the Iranian Parliament as well as among well known Islamic scholars and economists. Such divergent views and Islamic interpretations of varying roles of public and private sectors have resulted in alternative development strategies with possible impacts claimed by each side in the debate as more conducive to the goals of Islamization.

The purpose of this study is to: 1) analyze and evaluate the validity of these alternative development strategies from an Islamic perspective and 2) determine whether the impact of the selected strategy on the economy of Iran satisfies the goals of Islamization.

The paper is organized as follows. Section I provides the basic principles of 'Traditional Islamic Economics' and also reviews divergent views among Islamic scholars and economists about the roles of public and private sectors in an Islamic economy. Section II discusses the 'Requirements of Islamic Economic Policy' in a contemporary society by applying Islamic principles of 'Ijtihad' to solve modern day economic problems or deal with new situations where there is no precedent in Islamic history or tradition. Section III analyzes and evaluates the roles played by public and private sectors in economic development and their impact on the economy in the process of 'Islamization of Iranian Economy.' Section IV presents the Conclusion.

I. Traditional Islamic Economics

Islamic economic theory and all views in Islamic economics are based on the teachings of the Holy Qur'an and the Sunnah of the Prophet Muhammed (*pbuh*). Based upon these, there is agreement on the basic and broad features of an Islamic economic system. The islamic economic system is based on the principles of human welfare, justice and equity. Interest is prohibited, whereas wages, profits and rents earned from lawful economic activity are acceptable. The private ownership of resources by individuals is recognized by the Holy Qur'an, however all resources belong to Allah:

> ......Whatever is in the heaven and the earth belongs to Allah. (2:284)

Islamic economists reject both Marxism and capitalism and offer the Islamic system as a viable and better alternative to either one. The islamic economic system is a market system. There is a market for all lawful goods and activities. Prices are determined in the market by supply and demand forces. However, some regulation of the market may be required to make market systems conform to Islamic principles. Also there is an agreement that an Islamic government should collect *zakah* (obligatory Islamic Tax), which is required by the Holy Quran to be used to aid the poor.

After the consensus on these broad overall objectives and principles, there is a wide diversity of views on the role of private and public sectors in the economy. On one extreme are the views of Islamic economists followed by Ibn Khaldun, who was a great proponent of 'Laissez-faire' several hundred years before Adam Smith; and on the other extreme are the views of Ali Shariati, whose version of Islamic economy is a modification of the Marxist theory of class struggle, though rejecting both capitalism and Marxism as un-Islamic and untenable. Shariati says:

> The Socio-economic system of Islam is the same as that of scientific socialism except that it is based on faith in God. This system holds a middle ground between the two corrupt systems of capitalism and communism[1]

Shariati's class struggle is between the '*mustaḍ'afīn*', or dispossessed and oppressed, and the mostakbirin', proprietors and oppressors. In justification of his radical position on class struggle, Shariati quotes the Fourth Khalifah of Islam Ali, who says:

"I accepted the *Khilafah* because it enabled me to return to the oppressed that which had been taken away from them, and it allowed me to put an end to the injustices perpetrated by the oppressors."[2]

Finally, Shariati offers justification of his thesis by quoting (Surat Āl 'Imrān verse 21 in the Qur'an):

"Those who believe not in the signs of God and unjustly slay the prophets and slay those who enjoin equity: promise them a painful punishment" [3]

Shariati's view of class struggle and Islamic socialism is not shared by other Islamic jurists and economists in Iran. Khomeini, long before Shariati's writings, had this to say on property and capitalism:

> "You have justice when everyone is permitted freely to dispose of the property they have acquired by legitimate means and injustice when someone is allowed to transgress the property and rights of others.[4]

Other scholars and professors of Qom have held the same position. This position did not change after Shariati's writings. However, every scholar and politician has spoken since then to improve the economic plight of '*mustaḍ'afīn*'. The views of Imam Khomeini and the clergy at Qom are not much different from those of Ibn Khaldun on the role of markets and government in the economy. Qom scholars who support Islamic laissez-faire believe that a market price mechanism ensures efficient allocation of resources, and the objective of planning should be limited to remove obstacles of free movements of prices.[5]

Taleghani and Sadr disagree with this review. Taleghani argues that the Islamic government may fix prices for goods that are needed or subject to the greed of speculators.[6] Siddiqi talks about a 'just price' which, according to him, results from the free working of the market forces "when the market is free of monopoly, hoarding, speculation and other non-Islamic practices."[7] This concept of just price in goods and factor markets is in conformity with that of Qom scholars and the Neoclassical economic theory of competitive markets.

The Qom scholars, though generally against government intervention in the economy, do not object to such intervention if markets violate religious principles of Islamic society.

All Islamic scholars and economists agree that Islamic economic policy centers around abolition of interest and imposition of Islamic taxes like *zakah* and *khums*.

Beyond this general agreement, the interpretations and views vary from one spectrum to another on their calculation and meaning in contemporary society. The discussion involves their coverage and rates and distribution of *zakah* revenues. *Zakah* is the center of Islamic economic policy and is considered to be the solution to the problems of market imperfections. But there is no unanimity on the operational framework of *zakah* and other Islamic taxes in a contemporary society. For instance, Islamic economists and scholars are not clear on whether it is a tax on wealth, income or both with a variable rate in excess of the minimum or nisab. Similarly there is confusion on whether khums is a 20% tax on wealth, income or both. Also there is no clarity whether it is applied to current income, wealth or net wealth. Iranian religious scholars have not dealt with questions relevant to modern societies such as whether *zakah* should be applied only to objects like livestock, grains, gold and silver as was the case in the time of the prophet, or also applied to savings, shares and securities.

II Requirements of Islamic Economic Policy in a Contemporary Society

The bulk of Islamic economic literature, both in Iran as well as in the rest of the world, is based on the economic experience of early Islamic history around the time of the Prophet Muhammad and the four *Khulafā'*. The economy in the 6th century A.C. was a relatively simple tribal economy with small scale farming and trade sectors. There were no problems of unemployment, inflation, external diseconomies, market power, externalities, cyclical fluctuations, and extreme disparities in wealth and income. Similar conditions existed even up to the early years of the Industrial Revolution, when classical laissez-faire economics of Adam Smith was born in the 18th century and refined by the neo-classical marginalist school in the 19th century. Islamic economics uses basically the same model with some constraints and modifications in order to satisfy moral and legal codes of Islam.

The Islamic economic system which emerged from this model is claimed to have full employment equilibrium, where income earned is automatically spent either for Islamic consumption or Islamic investment. There is perfect competition among small firms leading to efficient allocation of resources satisfying Pareto optimality conditions. Government is needed only to correct market imperfections, if any. Income disparities or inequitable income distribution produced by market forces or unjust prices are corrected by *zakah* and abolition of interest.

This is possible in a simple agricultural economy of the pre-industrial revolution era. In contemporary economies with large urban and industrial sectors with extreme income disparity, high rates of unemployment and inflation, the conventional 'Islamic policy tools' of *zakah* and abolition of interest are inadequate to address all these problems. The Iranian experience has shown that in the absence of such policy tools and with government wavering the gap between the rich and the poor has not only persisted but widened. In the absence of new sources of revenues and with increased expenditures deficits have been increasing. In the absence of a bond market in an Islamic economy, government has financed these increasing deficits by printing money. This has contributed to rapid growth in the money supply and subsequent increases in prices.

Islamic economists have to develop new tools of economic policies to address the problem of a contemporary society. Islam provides a framework for deducing new verdicts, solutions and policies for new situations from the texts of the Qur'an and Sunnah, involving reasoning, *qiyas* and interpretation, which is ijtihad or independent judgment. ijtihad is needed not only in developing new economic policy tools, but also for applying existing Islamic policy tools to new situations.[8] A good example of this is *zakah*. Most of the texts of hadith indicate that *zakah* is applicable to cattle, agricultural crops and money made of gold and silver. Abu Saud argues that when hadiths impose *zakah* on wheat and barley, there is no reason to stop there and exclude other agricultural produce. Thus it is necessary to apply this analogy and use reasoning in setting up its rules and regulations.[9]

Further, 'Umar the second Khalifah, imposed *zakah* on horses, while Prophet Mohammed and Abu Bakr did not. This imposition and calculation of *zakah* gives more freedom to policy makers than it has been generally perceived. Thus *zakah* could become a viable effective policy tool in a contemporary economy. By the same analogy, new taxes, user's fees and other sources of revenue, could be used by governments in Islamic economies and can be used for developing infrastructure and producing public goods.

The roles of government and market in an Islamic economy are equally important. They are complementary to each other and not competitive.

Thus an Islamic economic system is a mixed economy which tilts neither toward state socialism nor laissez-faire capitalism.

III. THE ROLES OF PUBLIC AND PRIVATE SECTORS IN ISLAMIZATION OF THE IRANIAN ECONOMY

The year of the Islamic revolution, 1979, was marked by a big surge in nationalization of banks, insurance companies and large manufacturing enterprises. This was, to a great extent, necessitated by the flight of the owners and managers from the country. The revolutionary Islamic courts ordered the confiscation of excessive wealth and property which was acquired by illegitimate means.

The Constitution of the Islamic Republic of Iran which was approved in a national referendum in December 1979 defined the roles of the public and private sector in general. According to the constitution, the economy consists of three sectors, namely state, cooperative and private. The state sector includes all the large-scale and major resources, banking, insurance, energy, dams and large irrigation networks, TV, radio, post, telephone, shipping, rails, railroads and the like. The constitution does not clearly define the nature of the cooperative sector, other than stating that cooperatives will be established in urban and rural areas for production and distribution in accordance with Islamic criteria. Article 47 of the constitution asserts that private property legimately acquired is to be respected, however, the constitution imposes some limitations on private property. Article 96 requires that the legislation passed by the Parliament be approved by the Council of Guardians to ensure its compatibility with 'Ordinances of Islam'.[10]

The bills passed by the Parliament about urban land ownership and redistribution of agricultural land were rejected by the Council of Guardians as non-Islamic. The Council of Guardians has consistently supported private property rights.[11] Because of controversy over the issue of private ownership of resources, the role of state planning vs. markets, the first five year plan of the Islamic Republic, which was first tabled before the Parliament in 1982, went through many revisions and finally the planning approach to the economy was rejected under the war conditions.

The war, economic disruptions caused by the revolution and sharp declines in oil exports and earnings led to continued deterioration in the economy. The economy during this period experienced serious imbalances. Aggregate demand far exceeded aggregate supply; public expenditures far exceeded public revenues; demand for investment was far greater than available savings. The demand for foreign exchange was far greater than its supply. All of these conditions led to launching of the

First Five Year Economic, Social and Cultural Development Plan (1989-1993). The objective of the plan is to stabilize the economy and adjust imbalances discussed above. The development strategy focused on both growth and redistribution.[12]

The redistribution part of the plan has been shelved in favor of 'growth first and redistribution later'. This has resulted from the alliance of the government and *Bazaris* (merchants and businessmen) expecting a 'trickle down effect' to solve redistribution problems.[13]

The Iranian economy is facing severe structural bottle necks, which include infrastructural obstacles, transport, communication and energy shortages. The economy continues to experience worsening inflation, unemployment and stagnation. Unemployment in 1984 was estimated to be 19%. The Government has not published price indices since 1985 when the rate of inflation was 20%. Unofficial estimates far exceed these numbers.

Sluggish economic growth is to a great extent the result of flawed and sometimes contradictory economic policies. The radical proponents of central planning and a dominant public sector have been relatively more successful than the supporters of market forces and the private sector. The result has been the formulation and implementation of a highly centralized plan tilting heavily toward the public sector. The plan appears to be a replica of the Soviet-type Indian plan, favoring industry over agriculture and public over private enterprise. Tax policies have been designed to appease *Bazaris*. The result has been loss of efficiency no meaningful measures for equitable distribution of income, increasing government budget deficits, strict government regulations and restrictions on domestic and foreign trade.

IV. Conclusion

The lack of reliable information and shortcomings of existing data make evaluation of economic performance extremely difficult. However, the assessment of the Iranian economy made in the previous section was supported by a Friday prayer address by President Hashemi Rafsanjani on August 9, 1991. In his sermon he candidly summarized the state of the economy. From an economic point of view, he argued, the country had suffered a serious setback. Gross domestic product had been falling since the revolution. With an increase in population, per capita GDP had declined by almost fifty percent in the same period. Private investment had drastically declined and unemployment increased. The rate of inflation had trippled to 29 percent from less than 10 percent in 1979. The basic needs of health, education, electricity, clean water, roads and employment had not been sufficiently met for almost half of the population. The income disparity had worsened.[14]

This frank assessment of the performance of the economy since revolution, was, in essence, an admission that the basic economic goals of Islamization had not been achieved. Part of the failure was of course beyond the control of the Islamic regime and can be attributed to unfavorable circumstances, such as the prolonged war with Iraq, the influx of about three million Afghan refugees, Kurdish and Baluchi uprisings, and the trade embargo by the West. At the same time, flaws in the selection of development strategy and economic policies can not be underestimated in the failure to achieve goals of Islamization.

In spite of Ayatullah Khomeini's emphasis on a market economy, the Islamic Republic adopted in the early 1980's a failed, Soviet-inspired Indian model of economic planning under the influence of a radical faction in the Iranian government and the Parliament. This flawed model was later abandoned by the newly independent states of the former Soviet Union as well as India, because it ruined their economies.

This model lacked the Islamic balance between public and private sectors. It created a huge bureaucracy and a web of regulations and controls, thus discouraging private investment and growth of the private sector. It produced inward looking policies of import substitution, exchange controls and an overvalued currency. Its tilt toward industry further eroded agricultural production and employment. This made Iran dependent on oil exports more than ever before.

President Rafsanjani's sermon was a prelude to market oriented reforms and rejection of the flawed model of planning. Market oriented reforms were introduced in 1992. Unfortunately, the tug of war continues between those who conceive on an Islamic basis a greater role for the state and others who justify an unlimited role for a free market for the same reason. To conclude, Iran has a long way to go toward establishing a truly Islamic economy. It would require economic policies using ijtihad, as suggested in Section 11 of this paper.

NOTES

1. Ali Shariati, *Collected Works*. (Tehran: Intesharat Niloufar, 1362*) 26:295.
2. Ibid., p. 293.
3. Ibid., p. 290.
4. R. Khomeini, *Islam and Revolution*, trans. H. Algar (London: Routledge and Kegan Paul, 1981) p. 170.
5. The intrepretation of an ideal economic system which most resembles the ideas Khomeini and other Qom scholars, is presented in Hashemi-Rafsansani's *Siyasat-e-Eqtesadi (Economic Policy)*.
6. See Sayyid Mohammed Taleghani, Society and Economics in Islam. (Berkeley: Mizan Press, 1982) p. 128; and Mohammed Baqer Sadr, *Iqtiṣāduna (Our Economy)* (Gehran: Intesharat-e Islam, 1350) 1:347.
7. M.N. Siddiqui, *Muslim Economic Thinking: A Survey of Contemporary Literature* (Leicester: Islam Foundation, 1981), 17.
8. See Syed I. Mahdi, "Islamic Approach to Model Building in Economics and Other Social Sciences," *Journal of Objective Studies* 2, no. 1 (1990): 83-94.
9. For a detailed discussion on this subject, see Mahmoud Abu-Saud *Contemporary Zakat* (Cincinnati: Zakat and Research Foundation 1988).
10. See *The Constitution of the Islamic Republic of Iran*, trans. by H. Algar (Berkeley: Mizan Press, 1981), 46.
11. See Sohrab Behdad, "The Political Economy of Islamic Planning" in *Post-Revolutionary Iran*, ed. H. Amirahmadi and M. Paruin (Boulder: Westview Press, 1988), 114.
12. See Hooshang Amirahmadi, "Iranian Economic Reconstruction Plan" in *Reconstruction and Regional Diplomacy in the Persian Gulf*, ed. H. Amirahmadi and M. Entessar (New York:Routledge, 1992), 108.
13. Ibid., p. 110.
14. *Kayhan* (Iranian Weekly Newspaper), August 14, 1991, p. 9.

*Dates of Farsi publications are based on the Iranian Fasli calendar.

MONEY AND GROWTH IN ISLAMIC ECONOMIES: THEORY AND EVIDENCE*

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ABSTRACT

The paper investigates the relationship between government policy and economic growth in an Islamic framework. At first a simple model relating monetary policy to economic growth is developed. According to this model, government policies that favor inflation tax revenue to finance the deficit tend to increase the demand for money by lowering the profit-sharing ratio (or increasing the required reserve ratio). Such policies discourage investment, and eventually reduce growth. Using cross-country data to test the model, the empirical evidence confirms the theoretical analysis.

I. INTRODUCTION

Although there is a large body of literature assessing theoretical linkage between monetary policy and growth, the empirical findings are very divergent. Modelling money in the utility function, Sidrauski developed a long-run superneutrality result. A negative relationship between money and growth was established by Brock, while Long and Plosser, in a real business cycle model, showed that money plays no role in growth. More recently, in an endogenous growth model, Gomme showed that increased money growth-cum-inflation lowers real growth. So whether the monetary policy can enhance or undermine an economy's potentials to grow depends on the specifics of the model.[1]

Nonetheless, in an Islamic economy, where most of the conventional monetary tools are not available to policymakers, the relationship between public policy and economic growth is even more ambiguous. Despite the fact that the monetary authority still regulates the financial system, given the ban against fixed return securities, its power is limited[2]. Meanwhile, the financial sector still remains the potential source of "easy" resources for public budget financing. The fact that the central bank in an Islamic economy issues and regulates high-powered money leaves the government with a free hand to enhance or repress the economy. A monetary authority that encourages high inflation or permits large-scale financial repression can inflict severe damage on growth. On the other hand, an independent central bank that is committed to price stability, low inflation, and predictable, well executed monetary policy can contribute importantly to long-run economic growth. Reversing the fiscal and regulatory disincentives created by fiscal policy can also enhance growth through the endogenous factors[3]. Studies along these lines, which are called endogenous growth models, include, for example, Romer (1986), Lucas (1987), Barro (1990), and Mankiw (1990).[4]

The fiscal policy in an Islamic economy can effectively be implemented through the zakah system[5]. The fact that the zakah rate is exogenously fixed reduces the distortionary effects of variations of the tax rate. Any policy measure to raise the *zakah* revenue should focus primarily on raising the level of output. The government would then have the option and capability of coordinating its fiscal and monetary policies to boost growth. Revenues from *zakah* and from money creation can be used to finance public sector programs and/or finance budget deficit.

This paper investigates the relationship between government policy and growth in an Islamic framework. In particular, it addresses the role of monetary policy in determining long-run growth, in an environment where private agents maximize lifetime utilities, while financial institutions use learning-by-doing technologies. Section II of the paper contains a general equilibrium model of growth with zakat and profit-sharing features. Using a cross section of 30 Islamic countries, we empirically test the relation between growth and a variety of variables in Section III. We then compare our results with recent findings before concluding the study in Section IV.

II. The Model

II.1 The Economic Environment

We begin with an economy inhabited by infinitely-lived, identical agents, financial institutions known as banks (firms) and the monetary authority (government). Agents are endowed with capital at the beginning of their lives, and can hold their wealth in terms of two assets: deposits or real balances[6]. All deposits in banks are profit-and-loss-sharing (PLS) deposits that neither guarantee a fixed return nor do banks guarantee their nominal values. Each bank has access to an investment project which requires specialized evaluation and monitoring technology with a large fixed cost. The government issues high-powered money, distributes it at the beginning, and usually intervenes in the market to both allocate resources and direct monetary policy towards specific goals. Specifically, the monetary authority alters the profit-sharing ratios between banks and their depositors, as well as the reserve ratios on different types of liabilities.[7] We assume that the marginal utility of money is decreasing in the level of government intervention in the financial markets.

Building on Sidrauski, and closely following Roubini and Sala-i-Martin, we model preferences over per capita consumption and real balances by

$$U = \int_0^\infty e^{-\rho t} N(t) u(c(t), m(t)) d(t) \tag{1}$$

where $\rho>0$ is the rate of time preference and $N(t)$ is the total number of persons in the economy at time t.[8] The exogenous rate of growth of $N(t)$ is n. Both consumption and real balances are assumed to be normal goods, so per capita utility function $u(c(t),m(t))$ is strictly concave and assumed to have the following form:

$$u(c(t), m(t)) = \alpha \ln c(t) + \beta(\theta) \ln m(t) \tag{2}$$

where θ; $0<\theta<1$; is a policy variable (e.g., profit-sharing ratio between the financial institution and its depositors) and α, β are elasticities, with $\beta'(\theta)<0$, indicating that higher θ reduces the marginal utility of holding money[9]. The government alters θ as a monetary policy tool, to allocate resources in the economy. Strict control and regulation over θ, and hence over the financial system, will give the monetary authority better control over the money supply. Now, since the policy variable θ represents government regulatory policy in the financial market, then θ becomes an index of how an individual can be induced to invest (see Persson and Tabellini, 1991).[10] The life-time utility function (1) is optimized subject to the budget constraint:

$$\frac{K}{N}+\frac{M}{PN}=(1+r)(1-z)k-c \tag{3}$$

where K is the stock of capital, M is money stock, and P is the price level. r is the rate of return per unit of investment (endogenously determined) and z is the rate of zakah on capital[11]. Denoting the per capita asset-holding by $x_t = k_t + m_t$, the budget constraint (2) can be rewritten in terms of an asset accumulation equation of the form:

$$\dot{x}_t=(1+r)(1-z)x_t-nx_t-R_t m_t-c_t \tag{4}$$

where $Rt = (1+r)(1-z)\ \pi_t$ is the nominal rate of return per unit of investment, and π_t is the inflation rate[12]. The maximization problem is now given by the current value Hamiltonian:

$$H=e^{-(\rho+n)t}[\alpha 1nc+\beta(\theta)1nm]+\lambda_t[(1+r)(1-z)x-nx-c-Rm] \tag{5}$$

An optimal allocation must maximize (5) at each date t, provided the implicit price λ_t is correctly chosen. Optimizing (5) gives the first order conditions:

$$e^{-(\rho+n)t}\frac{\beta(\theta)}{m_t}=\lambda_t R_t \tag{6.1}$$

$$e^{-(\rho+n)t}\frac{\alpha}{c_t}=\lambda_t \tag{6.2}$$

$$\lambda_t((1+r)(1-z)-n)=-\dot{\lambda}_t \tag{6.3}$$

and the transversality condition

$$\lim_{t\to\infty}\lambda_t x_t=0 \tag{6.4}$$

Solving for the money demand function we get:

$$m_t^{\,d}=\frac{\beta(\theta)c_t}{\alpha R_t} \tag{7}$$

The money demand function depends negatively on the nominal rate of return (i.e. the opportunity cost of holding money), and positively on the level of per capita consumption. The accumulation equation (4), and the first order condition (6) imply that the per capita rate of growth of consumption is equal to:

$$r_c = \frac{\dot{C}}{C} = (1+r)(1-z) - \rho \qquad (9)$$

The first term in the right hand side of equation (8) is the after zakah (real) rate of return of investment, while the second term is the rate of time preference. Equation (-8) also reveals an important result of endogenous growth model. The long-run growth rate is determined by saving and investment decisions of private agents, or equivalently, by factors that influence saving and investment. These include the rate of return on investment (or equivalently the profit sharing ratio θ) and the *zakah* rate.

Now using Equation 7, the rate of growth of the money supply can be derived as:

$$\gamma_m = \frac{\dot{m}}{m} = (1+r)(1-z) - \rho - \frac{\dot{R}}{R} = \gamma_c - \gamma_R \qquad (9)$$

Equation (9) can be rearranged such that $\gamma_c = \gamma_m + \gamma_R$, indicating that the rate of growth of the economy is equal to the rate of growth of the money stock plus the rate of growth of profit. A necessary condition for balanced growth is that the rate of growth of profit is constant. In general, competition and profit maximization, together with government control over θ, will equalize profits and rates of return across firms. When this is realized, the growth rates would be equal (i.e., $\gamma_c = \gamma_m = \gamma$).

II.2 The Firm:

To model growth as an endogenous process, firms are assumed to operate production technologies that are linear in a broad measure of capital (i.e., includes both physical and human capital). With such technology, production is governed by the process:

$$Y = F(\phi(\theta), K) = \phi(\theta)K \qquad (10)$$

where y is the per capita level of output, and $\phi(\theta)$ is an intermediation technology or the state of knowledge[13]. The intermediation technology is increasing in the profit sharing ratio (i.e., $\phi(\theta)>0$). The production function in (10) retains the property of constant return to scale, but no longer exhibits diminishing returns to capital accumulation. Under such conditions, a constant rate of investment can result in an ever growing capital stock, and thus steady-state growth. This certainly rationalizes government intervention in the production process to raise the marginal product of private capital. I assume here any government actions that influence private production, and enhance property rights (i.e., enforcing the

Islamic laws of contracts) would be sufficient to promote growth.

Alternatively, higher profit-sharing ratios offered to the customers (depositors) will enable the banks to mobilize more funds. The more funds they mobilize, the more they invest on R&D, and the more intermediation knowledge and techniques they acquire. Through this learning-by-doing process, firms (banks) will collect and analyze information that allow investors' resources to flow to their most profitable use. The high incomes generated through efficient resource allocation and risk pooling-will feedback and promote economic growth. Grossman and Helpman showed that in an equilibrium with an active R&D activity, the expected rate of return for R&D must reflect the opportunity cost of capital.[14]

Now if the rate of depreciation of capital is zero, profit maximization will yield the usual condition equating the marginal productivity to the rate of return of capital:

$$1 + r = \phi(\theta) \tag{11}$$

Substituting Equation 11 in Equation 8 would give:

$$\gamma_c = \phi(\theta)(1 - z) - \rho \tag{12}$$

The expression to the left of the negative sign in Equation 12 is $(1 - z)f_k$, the private rate of return to investment. Assuming parameter values to ϕ and θ such that γ_c is positive indicates that monetary policy can be designed to make sustained per capita growth feasible. Stated differently, higher sharing ratios fixed by the monetary authority will boost growth.

II.3 The Government

In order to give the government a role to play, we assume it controls the supply of high-powered money by setting the nominal rate of growth of the money supply $\dot{M}/M = \mu$ and follows a time consistent monetary policy that prevents price level jumps.

The government finances its budget entirely by printing noninterest real balances and collecting *zakah* revenue. The total revenue collected is $(\dot{M}/P) + Z$, where $(\dot{M}/P)$ is the revenue from seigniorage and $Z = (1 + r)\,zk$, is the proceeds of *zakah*.

Since issuing of interest-bearing securities, e.g. bonds, is not allowed, and no taxes or transfers are assumed, the government's budget constraint is:

$$g = \dot{m} + m(\pi + n) + (1 + r)\,zk \tag{13}$$

Rearranging the agent's budget constraint (4), and using the government's budget Equation 13, the equation for capital accumulation can be written as:

$$\dot{k} = \phi(\theta) - n)\, k - c - g \tag{14}$$

indicating that capital stock accumulates as the difference between net per capita real output and private and public consumption gets larger (i.e. the larger the saving rate). Given government budget constraint (13), Equation 14 shows that the rate of capital accumulation is not invariant to the rate of inflation. Specifically, inflation would slow the rate of capital accumulation. Using the nominal rate of growth of money supply μ and substituting for the per capita demand for real balances, the government budget equation becomes:

$$g_t = \frac{\beta(\theta)C_t}{\alpha R_t}\mu + \phi(\theta)zk_t \tag{15}$$

The first term in the right hand side of (15) shows the government revenue from inflation tax, while the second term is the zakat proceeds. It is clear that θ should be chosen such that the expected revenue is equal to the expected deficit[15].

Given the marginal utility of holding money, any government action to increase θ would decrease the demand for real balances, reducing the revenue collected from inflation tax. On the other hand, since the zakat revenue is an increasing function of income, any government action to reduce θ (i.e.the profit-sharing ratio) would decrease output and hence, the revenue collected from *zakah*. A trade-off exists between the welfare cost of inflation and the welfare cost that can be ascribed to decreasing income. To balance these two effects out and maximize growth, the monetary authority should adjust its instrument to control the amount of revenue generated from both sources.

If the government has strict control over its monetary instrument, then revenue maximization with respect θ produces the following first-order condition:

$$\frac{dRevenue}{d\theta} = \frac{\beta/(\theta)C_t}{\alpha R}\mu - \frac{\beta(\theta)C_t}{\alpha R^2}\mu\frac{dR}{d\theta} + \phi/(\theta)k_t \tag{16}$$

The sum of the first two terms in Equation 16 is negative, indicating a negative relationship between inflation tax and the policy variable. Since marginal productivity of capital increases with θ, the third term is positive. The overall effect of increasing θ depends on whether the decline in revenue from inflation tax is larger or smaller than the increase in *zakah* revenue. A government that prefers levying inflation tax on currency to finance its deficit, will increase the per capita demand for money by reducing θ, thus reducing the incentives to invest (i.e., hold PLS deposits). Such behavior will certainly reduce the level of output, and hence hampers growth. Not only that, but since the economy will grow at a lower rate, both revenues, from *zakah* and from real balances, will fall. In contrast, a forward looking government will increase θ to mobilize more resources and increase the level of output. By so doing, it will be able to lure the nonproductive resources to the financial system and promotes growth.

To summarize this part, one would say that a government which prefers to collect inflation tax to finance its deficit would tend to reduce the profit-sharing ratio, and hence depress the incentives to hold PLS deposits. Financial institutions will then spend less in R&D activities and become less innovative in attracting and disposing off funds. Since holding money is a close substitute for holding PLS deposits, the per capita demand for money increases. Such behavior will be inflationary and may hamper growth.

III Empirical Evidence

The theoretical model presented above suggests an important relationship between growth and monetary policy in an Islamic economy. The objective of this part is to facilitate comparisons with the results of recent growth theories—for example, Barro, Roubini and Sala-i—Martin [1993]- before testing the ability of the model to mimic the key aspects of financial repression.[16] Further, we would like to see whether the regional growth differentials can be explained by the measures of financial underdevelopment in that region.

III.1 Comparison with Recent Growth Results

The data used for testing the model are a cross section from 30 member countries of The Organization of Islamic Conference (OIC), for the period (1960-1985)[17]. The data are collected from various sources, including Barro, Summers and Heston, Bashir and Darrat, and from various issues of IFS Year Books[18]. The selection of the sample size was determined by data consideration and the desire to obtain a set of countries that are similar with respect to structural parameters (i.e. technol-ogy and preferences), yet heterogeneous in their patterns of growth.

The method of estimation used is ordinary least squares (OLS). Since hetroskedasticity could be a problem in cross-country data, the standard errors of the estimated coefficients are based on the standard errors of the estimated coefficients are based on White's hetroskedastic-consistent analysis.[19]

We first started from the results of Bashir and Darrat, on determinants of endogenous growth as a benchmark before adding the financial variables. The objective is to isolate the effect of the financial variables on long-run growth after controlling for the usual determinants.

Table I below shows the results of regressing average annual growth rate of per capita GDP (GR) over the 1960-1985 period on: the initial (1960) level of per capita GDP (XI), the 1960 primary and secondary schools enrollment rates (HC1 and HC2) as proxies for initial values of human capital, the average ratio of government consumption (net of education and defence) to real GDP (GP), the proxy of political instability (RV), and population growth (NG). These variables are used in previous studies as possible determinants for per capita growth.[20] Focussing on the results relating to the initial level of per capita GDP (XI) and the proxies for human capital (HC1), (HC2), our results are broadly consistent with previous studies. The negative and highly significant coefficient on the starting level of per capita GDP supports the convergence hypothesis of the neoclassical growth model. A poor country tends to grow faster than a rich country, but only for a given quantity of human capital. The results in column (1) indicates that long-run growth is positively affected by the human capital variable (HC1), and negatively by the initial level of GDP (XI). Notably, government consumption (GP) and political instability variable (RV), are systematically inversely correlated with growth. All these variables have statistically significant coefficients. As has been noted by Barro, and Roubini and Sala-i-Martin, the African dummy (AF), has a strong negative impact on growth[21]. After holding other determinants, the parameter estimate on (AF) implies that, on average, growth in Sub-Saharan Muslim countries is 1.4% less than in the rest of the sample. The remaining variables, namely population growth (NG) and the human capital proxy (HC2), tend to reduce the growth rate of per capita output, though their impact is statistically insignificant. Column (2) of Table I expands the regression by adding another variable, namely the average ratio of real domestic investment to real GDP (INV), and drops (NG) and (HC2). The estimated coefficient on the investment ratio is positive and statistically significant(at the 10% level). It indicates that a 10% annual increase in domestic capital accumulation raises output per capita by .5%. Holding INV constant, the coefficient on (XI) remains negative and strongly significant, an indication that the negative correlation between growth and the starting level of per capita GDP does not work itself through investment. Adding INV and/or dropping NG and HC2 raised adjusted R^{-2} slightly and lowered (in absolute value) the coefficients of HC1 and AF. The smaller coefficient on (HC1) signals a possible collinearity between physical and human capital accumulation, while the larger (smaller in absolute value) coefficient of the African dummy (AF) indicates that growth rates are low in Sub-Saharan Africa due to low levels of investment. The rest of the estimated coefficients and their respective standard errors have slightly changed, but remained statistically significant.

Column (3) adds two more variables: an index of civil liberties (CL) and an oil dummy (OL), for the oil-producing countries. The results of this regression are similar to those in column (2), except that the inclusion of the (CL) variable has reduced the point estimate (and the standard error) of the African dummy. As for the oil variable, it is statistically insignificant and negative, contrary to our expectations. The overall fit of the regressions are quite good, suggesting that the contribution of the variables is relatively high (explaining about 87 percent of the variability), and that only a small part of the growth variance remains to be explained. As is easily verified, in all regressions, the calculated F values exceed the critical values at any conventional level of significance, refuting the hypothesis that the explanatory variables, jointly, have zero effect on growth.

III.2 Growth and Monetary Policy

In this section we expand the reference regression by introducing proxies for monetary policy tools. The unavailability of sufficient data on the profit-sharing ratio leaves us with one alternative: the reserve requirement ratio held against banks' deposits. As was shown by Roubini and Sala-i-Martin, this variable is expected to have negative impact on economic growth. Higher reserve ratio is an important source of seigniorage for government in developing countries. But a high reserve ratio forces banks to hold large amounts of non-productive capital, hence reduces capital stock and hampers growth. The data for the reserve variable RES is computed from various issues of International Financial Statistics (IFS) Yearbooks, and is measured as the ratio of total reserves to money plus quasi-money. Using the format of IFS, line (14a) is subtracted from line (14), then divided by line (34) plus line (35) minus line (14a), and averaged over the sample period.

Table II shows the results of growth regressions after introducing the RES variable. The first regression in table II is the reference regression, while regression 2 includes the RES variable as a proxy for monetary policy. The coefficient on RES has a positive sign, contrary to our expectations, though it is statistically insignificant. The inclusion of RES as an explanatory variable has slightly reduced the point estimate and the t-ratio of the African dummy. The coefficients of the remaining variables slightly changed compared to the reference regression. When INV and CL were dropped in column (2), the coefficient on RES changed sign and became smaller in absolute value, though remained statistically insignificant. The coefficient of the African dummy is now larger in absolute value and still statistically significant. The coefficient of the human capital proxy HC1 increases, and becomes statistically significant.

Columns (3) presents an expanded version of the growth regression. In column (3), the school enrollments proxies of human capital are dropped and replaced by the adult literacy rate LT. This variable is introduced to measure the stock, rather than the flow, of human capital. Although the literacy rate seems to correlate positively with per capita growth, its coefficient estimate is statistically insignificant.

III.3 Inflation and Growth

The anti-growth effects of inflation is shown in table III below. The data for inflation are computed from the IFS, Supplement Series, 1986-1988. The first regression in table III is the reference regression mentioned above. In column (1) we include the average inflation variable (INF) as an explanatory variable. The inflation rate has a negative sign and is statistically significant. When we add investment INV as a regressor in column (2), both the coefficient and the t-ratio on inflation have changed. More specifically, the point estimate on INF is more than two standard deviations away from zero. A country that decelerates its rate of inflation by 10% per year will experience approximately 2% annual growth rate. This result is consistent with previous studies like Kormendi and Meguire, De Gregorio, and Roubini and Sala-i-Martin.[22] In column (3), we add both the reserve variable RES and the inflation variable INF to the reference regression. Although the INF variable maintains its negative sign, the RES variable has the wrong sign and remains insignificantly different from zero. Notice, however, that since inflation in this model is caused by high seigniorage, the two variables may be correlated with each other. Brock found a statistically significant positive correlation between reserve ratio and the inflation rate in Latin America and Africa.[23] A simple way to isolate their individual effects is to exclude one variable when testing the effect of the other. The rest of the variables remain statistically significant and have the expected signs. The adjusted R^2 in all regressions shows that the regressors explain about 84% of variations in long-run growth.

IV Concluding Remarks

The facts documented in this paper serve to theoretically and empirically investigate the relation between economic growth and financial variables, particularly the effects of monetary policy on economic growth in an Islamic economy. Using available data from a sample of 30 Muslim countries, we tested whether certain variables controlled by the monetary authority were related to economic growth. We found that a government policy that financially represses the economy, in terms of increasing the reserve ratio held by banks against demand deposits, has a negative but insignificant effect on long-run growth. Our results show that a high inflation tax collected by the government to finance its consumption hampers growth. The results here also confirm the results of previous studies. The results presented in this paper show that there are significant positive externalities for growth from investing in physical and human capital. Other determinants of growth that seem to have negative externalities include: initial conditions of per capita GDP, nonproductive government expenditures, political instability, inflation, and the region where the country is located.

As policy recommendations to the Muslim countries, financial repression should be avoided, and political stability should be restored as both variables loom as obstacles to growth. Investment in human capital should be promoted, and policies correcting market imperfections should be adopted.

It may also be useful to implement the zakah system as this may reduce the disincentives created by the existing tax system. Research in this area is very much needed.

Appendix 1:

Data Sources and Countries in the Sample:

The data used in this study are the same data set used in Bashir and Darrat (1992). The main sources of that data set were Barro (1991), and Summers and Heston (1991): The Penn World Table (Mark 5). Variables not included in the two sources were computed from various issues of International Financial Statistics, Supplement Series, 11-15, 1986-1988, and World Bank's World Tables, 1993.

The countries included in the study are: Algeria, Bangladesh, Burkina Faso, Cameroon, Chad, Egypt, Gabon, Gambia, Guinea, Indonesia, Iran, Iraq, Jordan, Kuwait, Mali, Malaysia, Mauritania, Morocco, Niger, Nigeria, Pakistan, Saudi Arabia, Senegal, Sierra Leone, Somalia, Sudan, Syria, Tunisia, Turkey, and Uganda.

Appendix 2:

Variables' Definitions:

AF = A dummy variable taking the value 1 if the country is in Sub-Saharan Africa, and 0, otherwise.

CL = Relates to freedom of expression, and is measured on a scale of 1 to 7, with 1 meaning highest level; source: Gastil,1987.

HCI = 1960 primary school enrollment ratio (ratio of those enrolled to the total in their age-group).

HC2 = 1960 secondary school enrollment ratio (ratio of those enrolled to the total in their age group).

INF = Annual inflation rate measured by CPI, average (1960-195).

GP = Average of the real government consumption (excluding defence and education) to real GDP.

GR = Average (1960-1985) annual growth rate of per capita GDP

LT = Adult literacy rate in 1960.

NG = Average annual rate of growth of population, 1960-1985.

OL = A dummy for oil, taking the value 1, if the country is oil producing, and 0, otherwise.

RES = Annual ratio of total reserves to M1, average (1960-1985).

RV = Average number of revolutions and coups per year (1960-1985).

XI = Per capita GDP in 1960.

Table I
Bashir and Darrat Growth Regression*

Regression	Reference(1)	(2)	(3)
Dep. Var.	GR	GR	GR
No. Obs.	30	30	30
Constant	0.0399 (2.886)	0.0302 (3.276)	.0213 (1.663)
XI	–.0056 (5.291)	–.0057 (10.192)	–.0057 (8.486)
HCI	.0289 (2.40)	.0187 (1.934)	.0171 (1.632)
HC2	–0.0359 (.762)		
GP	–.0646 (2.268)	–.0825 (2.583)	–.0984 (2.503)
NG	–.0739 (.169)		
CL			.0023 (1.019)
RV	–.0279 (3.133)	–.0242 (2.827)	–.0258 (2.790)
INV		.0547 (1.588)	.0590 (1.428)
AF	–.0142 (2.212)	–.0092 (1.929)	–.0088 (1.799)
OL			–.0019 (.322)
R^2	.825	.846	.839
S.E.	0.0256	0.0256	.0256
F	20.55	27.57	19.94

*Absolute t-ratios in parentheses.

Table II
The Effects of Monetary Policy*

Regression	Reference	(1)	(2)	(3)
Dep. Var.	GR	GR	GR	GR
No. Obs.	30	30	30	30
Constant	0.0222 (2.129)	0.0182 (1.265)	.0363 (3.858)	.0224 (1.363)
XI	–.0050 (9.841)	–.0059 (9.941)	–.006 (10.606)	–.0055 (9.014)
LT				.0175 (.747)
HCI	.0182 (1.906)	.0192 (1.916)	.0246 (2.539)	
HC1	.0182 (1.906)	.0192 (1.916)	.0246 (2.539)	
GP	–.0921 (3.190)	–.0932 (2.741)	–.0695 (2.135)	.1209 (3.765)
INV	.0521 (1.581)	.0498 (1.407)		.0676 (1.858)
RV	–.0264 (3.155)	–.0278 (2.976)	–.0290 (3.373)	–.0275 (2..676)
CL	.002 (1.211)	.0025 (1.109)		.0029 (1.185)
RES		.0115 (.556)	–.0055 (.274)	.0059 (.267)
AF	–.0089 (2.228)	–.0082 (1.619)	–.0111 (2.222)	.0074 (1.262)
R^2	.846	.841	.829	.818
S.E.	.0256	.0256	.0256	.0109
F	23.74	20.16	24.58	17.29

*Absolute t-ratios in parentheses.

Table III
The Effects of Inflation*

Regression	Reference	(1)	(2)	(3)
Dep. Var.	GR	GR	GR	GR
No. Obs.	30	30	30	30
Constant	.0405 (2.511)	.0445 (4.954)	.0385 (5.134)	.038 (4.87)
XI	−.0058 (4.733)	−.0059 (19.67)	−.0056 (19.412)	−.006 (18.30)
HCI	.0234 (2.329)	.0269 (2.527)	.0213 (2.145)	.022 (2.07)
GP	−.0698 (2.145)	−.0669 (2.422)	−.0815 (2.872)	−.081 (2.85)
RV	−.0283 (3.292)	−.0299 (3.474)	−.0249 (2.989)	−.025 (2.96)
NG	−.1086 (0.226)			
INV			.0683 (2.16)	.068 (2.04)
RES				.003 (.21)
INF		−.0126 (1.363)	−.0179 (2.414)	−.018 (2.38)
AF	−.0119 (2.235)	−.0119 (2.672)	−.0094 (2.211)	−.009 (2.04)
R^2	.829	.838	.857	.850
S.E.	.0105	.0256	.0256	.0256
F	24.53	26.03	25.76	21.54

*Absolute t-ratios in parentheses.

NOTES

1. See M. Sidrquski, "Rational Choice and Patterns of Growth in a Monetary Economy," *American Economic Review, Papers and Proceedings*, 1967; P. Brock, "Reserve Requirements and Inflation Tax," *Journal of Money, Credit and Banking* 21, no. 1 (1989): 106-121; C. Plosser, "The Search for Growth" in *Polices for Long-Run Growth, preceedings of a symposium sponsored by the Federal Reserve Bank of Kansas City*, 1992; P. Gomme, "Money and Growth Revisited: Measuring the Cost of Inflation in an Endogenous Growth Model," Journal of Monetary Economics 32, (1993): 51-77.
2. The monetary tools available to the monetary authority in an Islamic economy include the reserve ratio against bank deposits, and the profit-sharing ratios between banks and their depositors and/or borrowers (see Mikhan and a. Mirakhor, "Financial System and Monetary Policy in Islamic Economy", in Theoretical Studies in Islamic *Banking and Finance* ed. M. Khan and a. Mirakhor (1987). Variations in these rates will enable the monetary authority to control the amount of funds channeled into the investment process.
3. These include raising the national savings, reducing the government deficit, and the accumulation of human capital and new technologies.
4. See P. Ramer, "Increasing Returns and Long-Run Growth", *Journal of Political Economy* 94 (1986): 1002-37; R. Barro, "A Cross-Country Study of Growth, Saving and Government", *NBER Working Paper*, No. 2855, 1990; G. Mankiw, "Commentary: The Search for Growth", in *Policies for Long-Run Growth*, 1990.
5. Zakah is a 2.5% annual wealth tax paid on non-working capital, profits, saving; and all types of wealth in excess of an exempt minimum known as *Niṣāb*. Although zakah is supposed to be given to a designated group in the society, it can also be spent in public programs.
6. Deposits here have equity features, and are not part of the money supply. Deposits, however, are entitled to a share in the profit in case of success, but their nominal values may decrease in bad states.
7. See M. Khan, and a. Mirakhor, "Financial System and Monetary Policy in Islamic Economy," in *Theoretical Studies in Islamic Banking and Finance*, ed M. Khan and A. Mirakhor, (1987).
8. Real balances enter the utility function because money reduces transaction costs.

   See M. Sidrauski, "Rational Choice and Patterns of Growth in a Monetary Economy", *American Economic Review, Papers and Proceedings, 1967*; and N. Roubini, and X. Sala-i-Martin, "Financial Repression and Economic Growth", *Journal of Development Economics* 39 (1993): 5-30.
9. If q is interpreted as reserve ratio against bank deposits, then b//(q) ‹ 0.
10. See T. Persson, and G. Tabellini, "Is Inequality Harmful for Grrowth? Theory and Evidence", *NBER WP No. 3599*, (1991).
11. The rate of return per unit invested is calculated using the formula $r = q\,(F(K^*) - K^*)/K^* = q\,\Pi^*/K^*$, where K^* is the optimal level of investment and $\Pi^* = F(K^*) - K^*$ is the optimal profit at that level of investment.
12. We assume a perfect foresight equilibrium paths where P./Pt = pt . On such paths, the expected and the actual inflation rates coincide.
13. The knowledge here is about financial intermediation techniques, which accumulates as a by-product of government intervention to correct market imperfections (effective enforcement of contractual agreements), or by private firms investing in R&D to

introduce new mechanisms to raise and disperse funds. See Grossman, and E. Helpman, "Trade, Innovation and Growth", *American Economic Review 80*, No. 2, (1990) and Romer, P., "Endogenous Technological Change", *Journal of Political Economy*, 98, No. 5, (1990).

14. See note 13.

15. The budget deficit here is equal to the difference between real government expenditures and real zakah revenue at time t.

16. See R. Barro, "A Cross-Copuntry Study of Growth, Saving and Government", *NBER working paper, No. 2855*, 1990; Barro, R., "EconomicGrowth in a Cross Section of Countries", *Quarterly Journal of Economics* 106, No. 2 (1991); and N. Roubini and X. Sala-i-Martin, "Financial Repression and Economic Growth", *Journal of Developmental Economics 39* (1993): 5-30.

17. The names of the countries are listed in the Appendix 1, while definitions of all variables appear in Appendix 2.

18. See R. Barro, "Economic Growth in a Cross-Section of Countries", *Quarterly Journal of Economics 106*, No. 2 (1991); R. Summers, and A. Heston, "The Penn World Table (Mark 5): An Expanded Set of International Comparisons, 1950-1988", *Quarterly Journal of Economics 106*, No. 2 (1991): 327-386; and A. Bashir, and A. Darrat, "Human Capital, Investment and Growth: Some Results from an Endogenous Growth Model" by now it must have came out, *Journal of Economics and Finance*, 1994. The data for financial variables affected by monetary policy, namely the reserve ratio, and the inflation rate are obtained from International Financial Statistics Year Books.

19. White, H., "A Hetroskedasticity-Consistent Covariance Matrix Estimator and Direct Test for Hetroskedasticity", *Econometrica 48*, No. 4 (May, 1980).

20. See Barro 1990, 1991 op. cit. note 16 and note 18.

21. This variable takes the value one if the country is in Sub-Saharan Africa, and zero otherwise. See Barro 1991.

22. See R. Kormendi, and P. Meguire, "Macroeconomic Determinants of Growth: Cross-Country Evidence", *Journal of Monetary Economics* 16, No. 2, (1985); J. De Gregorio, (Economic Growth in Latin America", *Journal of Development Economics* 39 (1992): 59-84 and N. Raubini and X. Sala-i-Martin op. cit. note 8.

23. See P. Brock, "Reserve Requirements and Inflation Tax", *Journal of Money, Credit, and Banking* 21, No. 1 (1989): 106-121.

New Managers in the Egyptian Public Sector During the Nasser Era

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ABSTRACT

The paper studies the development of the Egyptian public sector and examines the socioeconomic background and responsibilities of its managers during Nasser's socialist period. It assesses the impact of the new managers who shared his Arab socialist ideals on the management side of the public sector. The academic affiliations of the faculty of the National Institute of Management Development reveal the irony of hiring capitalist-trained instructors to implement socialist economic policies. The Institute remains under the heavy influence of American free enterprise principles but ignores Arab-Islamic values. Thus the socialist government failed to accomplish its basic goal for the public sector.

ORIGINS OF THE PUBLIC SECTOR

The public sector in Egypt was established in President Jamal abd al-Nasser's so-called "Domestic Socialist" phase in order to change the entire business sector from a privately controlled economy to an essentially state-controlled, or socialist, economy. According to George Lenczowski, the shift toward greater government control over business by Nasser's regime was intended to solve domestic problems which were mostly economic. Nasser's emphasis on domestic socioeconomic reform was also an important factor when he established the United Arab Republic (U.A.R.), i.e., Egypt and Syria (1958-61). In doing so, he attempted to gain the support of internal and external Arab forces by promoting economic development through rapid industrialization.[1]

During Nasser's "Pan-Arab Socialist" phase, the U.A.R., driven by Nasser's Arab Socialism, experienced dramatic political and economic change in its struggle for "freedom, socialism and unity." The economic thrust of Pan-Arab Socialism was to redistribute and expand the national wealth, which would "be done scientifically, through national savings, modern technology and total planning. Production [would] be carried out by both the public and private sectors, with the public sector being responsible for the overall planning".[2] In its early stages, however, Pan-Arab Socialism amounted to little more than a strategy for public ownership of the modern economic sectors such as finance, trade, and industry, and it did not emerge as an "official philosophy" of the U.A.R. until after nationalization of all large-scale industry and business was completed in 1962.[3] In 1960, law No. 332 was passed to organize the national economy, providing the first Five-Year Plan for Economic and Social Development. On December 16, 1961, a Presidential decree announced the following decision: All existing three hundred sixty seven (367) nationalized companies would be redistributed among thirty-eight public corporations. Under the new system, these were overseen by the Supreme Council for Public Organizations, which was directed by President Nasser.[4] The President gradually appointed experienced businessmen and new graduates to run these public corporations. Nasser also established the National Institute of Management (N.I.M.D.) to train a new socialist managerial force within Egypt's new socioeconomic environment.

This study critically addresses questions concerning the socioeconomic orientation of those managers who worked under the previous free enterprise system and were appointed by Nasser during the establishment period of the public sector. It will also argue that, because of a rising contradiction between the free enterprise notions of the N.I.M.D.'s instructors and the centrally controlled management system set up by the socialist government, the institute could not successfully establish a new management system.

CHARACTERISTICS OF THE OLD MANAGERIAL GROUP

Until the passage of the nationalization acts of 1961, most of Nasser's public sector managers were appointed from private business directors. Others, who had worked with Egyptian and foreign corporations from the colonial to the early socialist period, joined as experienced managers. In addition, there were managers who came from the civil service bureaucracy, the universities and the army. Nasser also promoted some low-level supervisors to the managerial level, probably more for their loyalty than their competence. This promotional discrepancy that characterized the choice of low-level supervisors was often associated with the preferential treatment of army officers. By and large, however, entry into managerial positions during the early Nasser period was determined primarily on the basis of experience, education, and to some extent, political affiliation.[5]

The native base of professional managers originated in Egypt during the formation of Bank Misr (1920), founded by an ambitious Egyptian industrialist, Talat Harb, who realized the importance of an indigenous national economy and a qualified managerial group to run it. Bank Misr's authority was not limited to financial considerations; it also promoted other industrial enterprises such as Misr Spinning Company, a predominantly Egyptian enterprise which required that its directors and shareholders be Egyptian nationals, thus making greater use of Egypt's human resources.[6] Every effort was made to employ and train managers and technicians; as a result a group of Egyptian professional managers emerge who eventually would replace foreign managerial expertise.[7]

In Egypt, managers tended to be very highly educated because they came primarily from the middle and upper class.[8] Traditionally, managers, government officials and bureaucrats were supplied by university faculties of law, engineering, public administration, science and medicine, as well as from other centers of intellectual development. A survey taken of 301 corporate board members in April and May of 1962 showed 57 engineers and scientists, 57 holders of doctoral degrees, and 187 high state officials, army officers, and company officials. Most had graduated from law, business administration, engineering, and literature.[9]

An examination of Egypt's academic curriculum until the 1960s reveals the economic and business philosophy which later influenced the public sector. Those educated in law school were often politicized by nationalistic ideas and French educational philosophy. Since the Egyptian civil code was based upon the French, law was taught by French professors using French reference books. The historic rivalry between the French and the British, expressed by the French law professors, moved Egyptian intellectual minds against British political and economic control. Therefore, law graduates such as Talat Harb (1867-1941) and Ismail *Sidqoi* (1875-1949) emerged as opponents to the foreign economic domination of Egypt in the early twentieth century. Their philosophy was to generate a native-based economy and business class. The trend started by Talat Harb and Ismail Sidqui continued with that generation of law graduates who joined the managerial group at the corporation and company level in 1962.

In contrast, those who graduated from the Egyptian or British universities in the disciplines of engineering, business administration, medicine and science, were partially taught in English, and thus were mostly influenced by the British tradition. This pattern continued until 1960.[10] The course syllabi were limited to traditional areas of focus in British business education, including such topics as day-to-day management, how to organize a business, and the creation of career-minded businessmen. Among early graduates influenced by the British curriculum, the most successful were Ahmad Abbud, an engineer educated in Glasgow university, and Hafiz al-Afifi, a physician. Both demonstrated in their professional activities little concern for nationalist goals and a far greater willingness to work with foreign capital. Influenced by his British education, Ahmad Abbud rose as a careerist and became famous as an industrial tycoon by founding the Khedival Mail line, along with sugar and fertilizer companies.[11] This lack of nationalistic spirit among career-oriented managers worked against the development of a locally financed Egyptian economy.

Thus the educational affiliation of Egyptian managers influenced their work with the public sector. Egyptian professionals viewed the impact of British and French education in their professional life this way:

> [The] French educational system stressed a more theoretical orientation as opposed to the pragmatism of the British system. In this view a French education would have the tendency to politicize students by encouraging a more abstract as opposed to empirical orientation.[12]

This distinction between theory and practice was drawn even more sharply in the contrast between the law on the one hand, with its legal, ethical and moral questions, and the study of engineering on the other hand, with its practical approach to problem solving and producing goods.[13] This difference between the two approaches had a tremendous effect in the newly organized public sector enterprises. While foreign concepts inspired one group (the lawyers) to develop a native-based professional outlook, and the other (businessmen and engineers) a careerist orientation, both would eventually join to run the industries in the public sector.

The Egyptian economy suffered not only from the influence of foreign concepts on the Egyptian managers, it also suffered when the managerial evolution in Egypt missed an important stage in its transition from patrimonial to professional management. Following the ideas of Max Weber, Samir M. Youssef holds the view that businesses in developed countries emerge gradually from individual ownership. Throughout western Europe and the USA, authority tends to reside with the private business owner, who often acts as his own manager. When the owner enlarges his business or incorporates, it is then operated by a board of directors, a professional group of managers external to the ownership of the business. This evolving process is often accompanied by changes in the psychology and skills of managers. The most important part of this process is the evolution of business leadership from paternalistic authority to impersonal management based solely on profit. Unfortunately, Egypt, like other Arab countries, skipped this part of the process in its developmental stage, when business was brought under a state controlled system. Despite structural changes within companies, the managerial character among Egyptians remained unchanged in terms of their authoritative behavior and attitudes. While the free market corporate manager possessed technical, organizational, and communication skills and was accustomed to working with a team, the Egyptian manager viewed the business as an extension of his family and continued to operate like a patriarch.[14]

Youssef also explains that the Egyptian work culture was beset by opinionated attitudes, fatalism, lack of teamwork, and rigid class values. He concludes his analysis of the managerial work culture in Egypt by saying:

> While it is logical to expect that Egyptian managers have become more professional as they have gained more experience, available data also suggest that they are not highly professional in the application of scientific method to their work.[15] This situation remained unchanged in Egypt and throughout much of the Arab world during Egypt's Socialist era, as the manager continued to guard his authority jealously.[16]

Characteristics of Nasser's First Managers

According to Westfall, Nasser considered university education an important factor in the managerial selection process. This emphasis on education was maintained by most socialistic countries and therefore can be understood as in some sense counter to capitalistic criteria for managerial qualifications. Interestingly, only a few of Nasser's managerial officials were trained in the Soviet Union, a nation which Nasser considered to be a pioneer in socialistic economic policy.[17] Nasser's emphasis on education ran contrary to the modern managerial system where a person's experience and capability was valued as much, if not more than, formal education. Therefore, a confusion arose between managerial theory and its application. Theoretically, managers were educated using the free enterprise model, while in practice, they had to apply capitalistic methods under a socialist system in a predominantly Muslim country.

Egypt's heavy reliance on technical managers, especially engineers at the production level, resulted from the view that economic development depends on manufacturing. Engineers were seen as better qualified to manage manufacturing enterprises because they could design, fix, and operate highly technical machinery.[18] Such technically oriented managers also had a kind of tunnel vision where production quality was concerned. This tunnel vision ultimately inflated the price of manufactured goods beyond the purchasing capacity of the average Egyptian consumer. As a consequence, lower priced imported materials attracted Egyptian consumers more than the goods produced by domestic manufacturers. For example, the textile sector used expensive long staple cotton to produce materials. Because the manager's lack of marketing expertise hindered their ability to understand the buying capacity of their people, Egyptians chose to purchase less expensive imported goods as the price of domestic textiles increased.[19]

The New Socialist Managers

President Nasser needed a huge managerial group, but was keenly aware of the danger of empowering a managerial class. He warned his followers that during the transition from capitalism to Arab socialism, powerful managers might attempt to increase their power and exert complete control over economic production.[20] Therefore, Nasser tried to keep power out of the hands of traditional patrimonial managers by installing new professional ones. It became essential for President Nasser to create a competent pool of managers who would remain faithful to his leadership and would work to support his system.[21]

In keeping with socialist and nationalist ideology, an effective managerial group would stimulate production by striving to improve manufacturing methods and motivating subordinates to fulfill the plan argues Fouad Sherif, first chairman of the N.I.M.D. Sherif believed that a manager in a socialistic system needed to possess a greater awareness of his social responsibility and of his commitment to social objectives than his counterpart in a private enterprise system. Thus his manager would need to understand and be able to work within the bureaucratic machinery of the ministerial system that accompanied nationalization. Managers were thereby familiarized with all investment projects to be executed by the different state enterprises. The new manager also had to understand with whom he needed to consult to finish the job most efficiently, for example, the working committee of the Arab Socialist Union. Thus the effectiveness of a new manager was dependent upon his ability to adjust to bureaucratic pressures from above and to display leadership under democratic pressures from below.[22]

But while managerial knowledge followed socialist principles, the structure of authoritative hierarchy followed traditional western organization, where the highest authority is the chairman of the board of directors, followed by other board executives and then by production, marketing and personnel managers. Although the Egyptian manager's authority was restricted, unlike that of the western manager, the new system gave him a great deal of decentralized authority. While the new Egyptian system was not free of governmental interference, it nevertheless established a level of autonomy in the public sector corporations sufficient to counter many of the system's centralizing tendencies. As a result, the system depended for its best results on an effective managerial group.[23] Sherif and the N.I.M.D. saw the need for a new managerial force, one which would conform to the realities of the Egyptian socioeconomic and political environment.

The new managerial elite that arose after the passage of the 'socialist laws' of 1961, drawn largely from an emerging middle class and inspired by Nasser's revolutionary ideas, combined their Arab nationalistic ideals with a socialist sympathy for the working classes.[24] With new open education policies, higher education was no longer limited to the upper class; hence, new opportunities arose for those of the lower middle class who wanted to improve their socioeconomic station. Thus such disciplines as engineering, science, public administration, law, and business became increasingly popular among lower middle class students. This open education policy also served the economic aims of Nasser's socialism. It provided middle class jobs to a managerial class ideologically disposed to serve the public sector. The university gave new managers a practical education, and created a new arena for training the future managerial class.

Under the new system, Sherif argues, a manager needed to have "behavioral characteristics" on a par with his technical skills. This emphasized the need for public communication which was defined as skill in transmitting messages or ideas from the top level of the enterprise to the bottom, keeping the ideas as close as to the original as possible. Therefore, every person in a given enterprise had to be exposed to plans from all levels of production in order to develop effective communication between the various levels of the organization. The system also sought other managerial qualities, such as knowledge in the science of management, information technology, system analysis and mathematics. The new manager needed to be familiar with the modern technology of the enterprise, able to organize operations, and competent to solve production problems.[25]

The new managers, therefore, were required to work harder and learn faster to meet ambitious goals. A manager should do his best work not for monetary incentives, but to meet these goals. Above all, the new manager had to shift his values in the direction of ideology rather than personal gain, which meant serving his country first and then himself.[26] The managerial ethic acquired a markedly socialist tone, encouraging persons to work for the sake of the state, and therefore to exhibit greater concern for social responsibility than their own financial interest. These principles emerged from the Arab Socialist Union and from the National Charter, in which individual priorities were subordinated to those of the nation.[27] Egypt's new manager also had to deal with more difficult problems than his private enterprise counterpart. In most cases the manager was required to accomplish conflicting goals. He had to satisfy higher authorities by fulfilling previously determined plans, all the while reducing prices, implementing higher wages, promoting exports, increasing production, spending minimal foreign currency, working in a team, making a profit, and dealing with labor.[28] Where it is true that a manager under a free market system is not often required to carry out this kind of pre-planned task, he may nevertheless have to work hard to increase production. The manager in Egypt works under a centralized, state-controlled system, which can make demands on a company's performance based on factors external to the company's concerns. On the other hand, the pressure a manager in a free market system faces comes from intrinsic business concerns like competition, labor strikes and price inflation. Furthermore, in a state controlled market, a manager does not set wages and is not responsible for workers' social security, health and safety, because these are guaranteed through government law.

Thus it appears that the Egyptian government was searching for a new type of manager whose behavior differed from that of the previous managerial group in terms of social responsibility and sense of equality. The criteria for new managers now emphasized interpersonal communication, following those western standards for managerial quality which are grounded in behavioral science principles. But in practice, the wholesale hiring of new graduates for public sector managerial positions led Egypt into its socialist era without an experienced managerial class. The new managers lacked entrepreneurial skills, creating a bottleneck in the process of development.[29] While the Nasser government had realized that the role of managers was vital to most of the country's developing plan, it was rapidly becoming clear that the managerial group needed additional talents to effectively administrate development programs.

The N.I.M.D. and Its Training Program

The main reason to establish the National Institute of Management (1961) was to develop a managerial system. By recognizing management as a vital element in the economic development of Egypt, the Institute believed that without a sufficient amount of trained managerial personnel at all levels of organization, national economic and political objectives could not be met.[30] Another aim was to fight the problems of transition from capitalism to socialism and to ensure sufficient managerial expertise to develop a creative response to these problems. The Institute consistently advocated changes in the system of organization and management of the enterprise sector.[31] In the interest of promoting a managerial force suited to Egypt's particular needs, the Institute set the following objectives:

1. To promote, carry on, and coordinate activities which will increase the quality of qualified managerial personnel of the Republic.
2. To conduct research in the field of management or administration and to create a pool of knowledge that will contribute to the development of managerial competence at all levels.
3. To conduct, or assist in conducting, personnel development programs for managers at various organization levels in the public and private sectors of the economy.[32]

The Institute started with three departments: training, consulting, and research. Under the training program a smaller institute was formed to organize seminars, conferences, and occasional lectures. Most managers were required to attend these programs. Emphasis was placed on organizational skills, interpersonal communication and the solution of technological problems at every level of business operations. The aim of this service was to furnish managers with behavioral models, to change affltudes, and above all, to improve communication between all levels of the organization. The N.I.M.D.'s consulting services also offered assistance to the individual manager, providing suggestions for resolving problems in the areas of planning, marketing, and finance. The research service produced extensive English and Arabic publications on different aspects of management. The publications tended to focus on areas where Egyptian managers had the least knowledge, including the following: channels of distribution for consumer goods, basic characteristics of Egyptian markets, foreign exchange, basic management functions and management education in Egypt.[33]

From 1960 to 1962, the Institute organized four management development programs. The first was administered by American faculty members and used American case-studies; the next two were led by American and Egyptian faculty members, and the fourth, held in Suez in 1962 with 48 participants from 35 different companies, was taught mostly in English by both American and Institute faculties.[34]

The fourth seminar was the first to acknowledge the need to review the cated that the Institute understood the socialist system's need for a new managerial group. The Institute's faculty continually refined and reexamined the program to enhance its applicability in the new socialist environment.

The academic and social background of the Institute's faculty reveals what kind of business and training ideas they had received. It also suggests ways in which these ideas may have influenced the new program. The Institute had forty-one faculty and staff members, including thirty-one full-time and ten part-time members. The full-time members included seventeen teaching faculty and five senior research staff. Among the seventeen teaching faculty members, sixteen held doctoral degrees and one had a chartered accountant degree from United Kingdom. Eleven of the Ph.D.'s received their degrees from prominent American universities, and the rest from the United Kingdom. Among the five senior research staff, three had earned M.B.A.'s, from Harvard, Pittsburgh and Cornell, two had received M.A.'s from Birmingham and Leeds. An additional ten part-time faculty and senior researchers had doctoral degrees, but the names of the schools and dates of certification are not available. Among nine full-time research assistants, seven had commerce degrees from Egypt, two of them had the equivalent from the USA. All were male except one, who worked as a research associate and held a commerce degree from Egypt. Nearly all those employed by the Institute had completed their education between 1952 and 1961.[37]

The founding Chairman of the Institute, Dr. A. Fouad Sherif, held an M.B.A. and Ph.D. in Business Administration from the University of Chicago (1953). He had been Chairman of Business Administration at Cairo University, was former Director of the Research in Planning Commission, had been adviser to the Economic Development Organization, and had served on the boards of directors of a number of Egyptian companies.[38]

Other prominent experts at the Institute included: Dr. Ibrahim Saad el Din, Ph. D, Illinois, Abdel Aziz el Sherbini, Ph. D., Iowa; Dr. Hamed Kamal el Din, Ph. D., Iowa, Abbas Yousri, Ph. D., Wisconsin, and Samir Fahmi, engineering post-graduate diploma from Cairo University. These five board members also had worked as managers in Egyptian companies before they joined the Institute. All had been appointed by Nasser and were younger than the President. The Institute's foreign experts included: Dr. Harold Q. Langenderfer, North Carolina, Dr. Ralph Westfall and Dr. Harper W. Boyd Jr., Northwestern University, and Dr. Howard R. Smith, Georgia. All of these men, and others such as Harper R. Smith, Talat Abdel Malek, and Abdel Aziz el Sherbini, were considered pioneers in their fields. All had publications in the N.I.M.D. series, demonstrating their role in the development of the new management system.[39]

Most importantly, the areas of public administration, commerce, economics, marketing, finance and engineering were well represented in the degrees held by the Egyptian Institute staff, both Egyptian and foreign. Almost all Egyptian Institute members had earned a bachelor's degree from their universities in these disciplines, and thereby had been influenced by the British and western traditions of management training. Their background in British curriculum helped these Egyptians to come to America and England to earn advanced degrees. The predominance of western education and values among the Institute's staff was a growing concern, given Egypt's rapid economic transition from a private to a nationalized central system.

In our data collection, we could not find an Institute faculty member who held a law degree, despite the prevalence of lawyers in the Egyptian intellectual community. It would not be an exaggeration to argue that the absence of law graduates in the Institute was a reflection of the continuing rivalry between Egyptian law degree holders on the one hand and those with degrees in public administration, commerce and engineering, on the other hand.

None of the instructors at the Institute had earned higher degrees in French universities. Thus the influence of the French tradition in Egypt's business world had declined markedly, particularly after the foundation of the Institute. With the decline of the French tradition in the new managerial culture, one saw a correspondent rise in the influence of the American business culture, which was beginning to displace British influence. Not only was the rising American influence slowly eliminating the presence of French business culture; it was also penetrating a socialist system based on opposing business ideals. An Egyptian manager who had received training from American and Egyptian Institute professors would certainly have been influenced by his instructors' behavioral characteristics and communication techniques, especially since these qualities were important criteria for the ideal socialist manager in the public sector (as described by Fouad Sherif).

Although the Institute instructors realized that Egypt needed a group of managers familiar with the country's cultural heritage, nevertheless their use of reference books emphasizing the innovative transfer of the American curriculum to their own system fundamentally belies their claim to want their own management system. Their efforts at redefining management training became more controversial when they adopted a management development program designed by an American expert, Professor Harold Langenderfer from the University of North Carolina. In effect, Langenderfer's program attempted to adapt a development program based on the free-market system to a country which possessed an entirely opposite economic system. While he designed the program with the aim of generating an indigenous new managerial group, its effectiveness remains in question when one considers that until the present time 75 percent of management faculty in Egyptian universities received their higher degrees from Western institutions.[40]

The main designer of the management development plan, Professor Harold Langenderfer, expresses a similar view when he writes:

> Their [the managers'] education and training frequently takes place in the Western bloc of developed countries where they are exposed to a culture and economic system which is alien to the system in their own country. Yet they must work and live in an economy which has turned its back on private enterprise and has severely restricted their freedoms. They are expected to absorb any useful technical training, but it is assumed that they will not be influenced by the social, economic, and cultural patterns of the countries where they study.[41]

The above clearly implies that one cannot borrow a learning technology from the West without also borrowing the socioeconomic and cultural patterns in which it arises. Langenderfer's view shows a concern that his design for the management program could not but have been heavily influenced by American culture. Therefore the claim by the Institute to create a new managerial class in conformity with the Egyptian sociopolitical environment remains questionable.

However, foreigners were to some extent incapable of understanding the Egyptian sociopolitical and economic culture, and moreover, which traditions within that culture should be given priority in the effort to establish a managerial system. Many experts believe that an ambiguity in the N.I.M.D.'s training program was the main reason for the mixed results of their efforts.[42] A country rich in Arab-Islamic culture and tradition does not like to see the penetration of Western culture. Traditionally the Arabs are very independent, believe in free enterprise, respect private ownership of capital and personal profit.[43] The coming of Islam did not change this except that the Qur'an asked them to pay zakah, and warned them not to earn any excessive profit or to bring about injustices which cause hardship on society. Like the West, Islam respects managerial freedom, but like all Muslims, the manager must apply his will within the moral and ethical values of Islam.[44] For the Islamic manager, the primary consideration is the employee as human being and devout Muslim, not the employee as producer. Most considerations, therefore, take place within a religious parameter.[45] The N.I.M.D's training program was different, one borrowed from the secular-oriented West. One finds in Nasser's

Egypt a managerial system which ignores the country's Arab-Islamic tradition and continually finds itself trying to innovate from the traditions borrowed from the West.

In addition, attempting to reformulate the free enterprise system into a socialistic one—embodying state ownership, central planning and operation—is also unfamiliar to Egyptian society.[46] Under this system the individual has no right to be involved freely in economic activities. Such a system of economic management worked for a while in the former Soviet Union, socialist Egypt, and in other socialist countries. However, each subsequently encountered increasing difficulties in maintaining the growth of their economies, due to frequent government interference, less efficient management and a hostile attitude towards the market economy.[47] The Institute's effort to convert to a socialist model failed because it did not recognize the personal interests of the managers, which is an important part of traditional Islamic culture.

However, the Institute's scholarly publications would convince most that their efforts would have produced better results if Egypt had simply followed the free-market system within the line of Arab-Islamic culture, rather than trying to establish a state-controlled socialist one. After studying the publications of the N.I.M.D., one gets confused trying to understand their attempts to neutralize the theoretical discrepancies between Eastern and Western theories, even as their staff of experts remained under heavy American influence. This confusion is reflected in Egypt's position in world politics. Nasser's regime maintained close ties with the Socialist bloc but did not establish an exact replica of their managerial system, although there were similarities to the socialist model in Nasser's plans.

CONCUSION

From the above analysis we can safely conclude that the ambiguously defined criteria for managerial skills, along with an overemphasis on foreign business concepts in the Egyptian management training programs, were the principle impediments to managerial development in Egypt. Moreover, until 1960 the Nasser government could not really escape the yoke of western influence. Although he nationalized the business and corporate sectors, Nasser's plan was shattered by internal and external factors. The public sector was basically run by an administration directly or indirectly influenced by managers who had either worked under previous regimes or were influenced by pre-1960 educational ideas, especially French and British.

Also, a new group of managers, hired by Nasser because of their nationalistic and socialist attitudes, became confused due to their training at the National Institute of Management under instructors schooled in the West. While the public sector remained under the socialist model, the training system in the Institute was under the heavy influence of American free enterprise principles and neglected the native Arab-Islamic culture. Nasser's plan to establish a socialist management system was hampered, so much so that the managerial system itself was confused by the conflicting principles of free market management, state-controlled socialist economy and Arab-Islamic influenced managers. This dissonant system of influences resulted in chaos in the public sector under Nasser.

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19. Hashim G. A-Shami, "The Impact of Cotton on Economic Development of Egypt: 1952-1976" (Ph.D. diss. University of Wisconsin-Madison, 1979).
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30. See U.A.R., National Institute of Management Development Report (Cairo: The N.I.M.D. Publication, 1962-1963), 6-7; and Harper Boyd, Ahmed Sharif; (Cairo: The N.I.M.D. Publication, no. 1, 1962), 3.

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- To provide a comprehensive Islamic outlook through elucidating the principles of Islam and relating them to relevant issues of thought.
- To regain the intellectual, cultural, and civilizational identity of the Ummah through the Islamization of the humanities and social sciences.
- To rectify the methodology of Islamic thought in order to enable it to resume its contribution to the progress of human civilization and give it meaning and direction in line with the values and objectives of Islam.

The Institute seeks to achieve its objectives by:

- ▲ Holding specialized academic conferences and seminars.
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ABOUT THIS BOOK

This book is a compilation of selected papers presented at the Fifth International Islamic Economics Seminar (1414/1993) jointly sponsored by the International Institute of Islamic Thought and the World Bank.

This seminar adopted the theme of "The Role of Private and Public Sectors in Economic Development in an Islamic perspective."

This work, which is edited by E. Ahmed, includes M. A. Choudhury's "Why Cannot Neoclassicism Explain Resource Allocation and Development in the Islamic Political Economy", J. Abu-Rashed's "Altruism in the Conduct of the Private and Public Sectors", I. Ahmad's "The Role of Public and Private Sectors in Economic Development in an Islamic Perspective", S. M. Ali Akkas's "Operation of an Islamic Bank Under Conventional Banking Framework: A Comparative Efficiency Analysis", A. Aziz's "Islamic Corporate Finance: A Tool for the Development of Muslim Countries" M. Sh. Ebrahim's "Theory of Participating Term Certificates: A General Equilibrium Perspective", J. W. Wright's "Muslim Attitudes Towards Islamic Finance: A Review Lecture and an American Survey", S. I. Mahdi's "The Role of Public and Private Sectors in Islamization of the Economy of Iran", A. H. Bashir's "Money and Growth in Islamic Economics: Theory and Evidence" and Sh. M. Safiullah's "New Managers in the Egyptian Public Sectors During the Nasser Era."

In all, ten prominent scholars share their valuable insights on their respective fields in this book.