

# Islamic Economics and Finance: Where Do They Stand?

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*A critique of Islamic economics and finance is launched against the backdrop of what otherwise is essentially the epistemological understanding of all theories and application relating to human volition. The epistemological principle is that of Unity of Divine Knowledge, which in the Qur'ān is referred to as Tawhīd, Oneness of Allah (God). It is a systemic concept of pervasive learning by complementarities and participation in and across the grand relational world-systems. The proponents of Islamic economics and finance have forever forgotten how to treat this central and immutable praxis from the truly Qur'ānic standpoint. Hence this paper argues that Islamic economics, finance, Islamic banking, Islamic development organizations, methods and thought, for ever have been trapped in a feigned kind of neo-liberal and neoclassical doctrinaire, from which they cannot liberate themselves with out a fundamental change of praxis in place. No wellbeing and uplift for the Ummah (the conscious and pious world nation of Islam) is possible in these prevailing mechanisms that serve as link to the world capitalist globalization process of economics, finance and neoclassical socioeconomic thinking.*

## 1. Introductory Remarks

There is a crusade being waged for a considerable time now by so-called Islamic economists and finance experts to resort completely into Western methods and models of these fields with some *fiqhī* (interpretive source of the Sharī'ah rules) inferences Colouring what the protagonists would like to qualify as 'Islamic'. There are multiple methodological errors in such an approach to what has come to be referred to as 'Islamic Economics' and 'Islamic Finance' and the many themes these comprise. In the end, the result of the intellectual enterprise leaves the *Ummah* (world nation of Islam) in deep predicaments of intellectual poverty and loss of self-reliance toward establishing a Qur'ānic worldview transcending both Western imitation (*Taqlīd*) and also *fiqhī* origin of Islamic thinking.

In regards to the latter case writes Asad (1987): "In consequence, our current theology (*kalam*) and canonical jurisprudence (*fiqh*) now resemble nothing so much as a vast old-clothes shop where ancient thought-garments, almost unrecognizable as to their original purport, are mechanically bought and sold,

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patched up and re-sold, and where the buyer's own delight consists in praising the old tailors' skill..”

Such problems multiply during this Twenty-First Century juncture even with the rise of post-modernist questioning in intelligentsia and with deepening Islamic crisis with the Western World. We want to address this problem of the Muslim predicament in the Western mould against the backdrop of what otherwise can be truly an Islamic approach and worldview in problems of economics, finance, institutions and the whole world-system of Islam (Choudhury, 2004a).

To take an example, in a recent paper by H. Dar and J. Presley published in the e-version of the *International Journal of Islamic Financial Services* (1:1, 2003) the authors replicate this current attitude among Islamic economists and financial experts towards an imitative Islamization of the Western praxis. The authors ask Islamic economic and financial experts to resort to Western methods of study and references in this area. They alert the reader to Western trends in economic theories relating to the study of interest rate, business cycle and long- and short- term volatility caused by the relationship between interest rate and monetary policy. The paper while undertaking a brief but succinct introduction to classical, neoclassical, Keynesian and neo-institutionalism views on the theme of interest rate and economic activity wants that Islamic economists and financial experts should emulate the quantitative methods being used in the Western economic tradition. The authors start off their article by stating, “Rather than develop in isolation from Western literature, Islamic scholars would do well to exploit the wealth of supportive arguments found in Western literature.” (Dar and Presley, op cit, page 1)

## **2. Arguments**

I argue that the submissive attitude and advice on equating the Islamic and Western methodologies and even empiricism, and thereby calling for adopting Western methods of analysis, constitutes a flawed reasoning. Note here that I have made a major difference between the concepts of *Methods* and *Methodology* as shown by italics. Choudhury (1999) explains that methodology and methods are interrelated scientific primitives together used for understanding praxis and applying it to inferential consequences of the methodological premise by the corresponding analytical methods. The original premise of praxis is invariably epistemological in nature. Epistemology is subsequently integrated by a scientific discursive approach with ontology, and thereafter, with the ontic (evidential) domain of analysis, application and policy. *Methods* belong to the ontological and ontic domains, when the analysis and application of the original methodological premise is to be formulated and applied for understanding reality.

Yet, in the absence of the epistemological methodology it is possible for *methods* to be used independently of the ontological and ontic understanding. When this is the case, the *methods* fail to have substantive relevance in the light of

methodology. They exist merely as procedural artifacts of an analysis but not the true and relevant one. Choudhury (1999, op cit, p. 348) writes, “Methods can exist without methodology as was explained in the case of the reductionist design of rationalism. But methodology cannot exist without self-determined methods. Such methods must be derived from the essence of the methodology itself. They must be such instruments that mobilize the ontological-epistemological nature of divinely unified systems into explanatory relations.” We will explain the difficulties that are encountered in such academic ventures from the Islamic side.

Equally flawed is the argument in Dar and Presley (op cit) that the Qur’ānic emphasis on economic matters by Islamic economists has been an idealistic construction of a perfectly imitated world-system of the Qur’ān. The authors (Dar & Presley, op cit, p. 1) write, “Unfortunately, also Islamic writers have focused upon the Koran and mainly Asian literature without utilizing a wide body of literature in the West which would assist in the development of the Islamic paradigm.”

Contrary to this assertion is the distance of the prevailing Islamic socio-scientists from any substantive reference to the Qur’ānic worldview, its epistemology of Oneness of the Divine Laws (*Tawhīd*), the causal understanding of unification of knowledge in world-systems by the epistemological methodology embedded in ontology and ontic learning domains. Consequently, there remains an utter vacuum in the construction of the Islamic phenomena vis-à-vis its epistemology, the world, and the ontological reconstruction of a socio-scientific normative thought, which can then convert itself into positivism (Choudhury 1998).

Within the broad arena of human inquiry are massive questions that span methodology, methods and both normative and positive construction in the light of the Qur’ān and the Sunnah. Without this fundamental epistemological reference there cannot be an authentic building bloc of the Islamic revolutionary paradigm of the socio-scientific worldview. Within this worldview is the embedded field of Islamic economics and finance as a subset. Precisely for this intellectual inadequacy of the notion of Islamic economics and now Islamic finance, the last seventy years of its existence and the last twenty five years of Islamic banking and Islamic development finance organization have produced no positive challenge and change in the Ummah as she slips into decadence at the start of the Twenty-First Century.

### *The Epistemological Problematique*

Analytical problems arise both with the arguments and with the general body of literature presently existing in the Islamic socio-scientific field. Such problems manifest themselves as failure to comprehend the essentially epistemological origin of an ontological construction of theory and application. The Islamic inquiry has remained ambivalent to such profound questions that underlie the construction of

any revolutionary theory and its worldview. Bohr (1985) mentions about Einstein's remark, that there is no Science without Epistemology.

If the Islamic worldview is premised on its distinctive epistemology, ontology and the unified ontic way of organizing the world-system, then such a revolutionary doctrine cannot be accumulative in thought as normal science. It must be distinctive and out of the ordinary lineage of normal thinking. In this regard Kuhn writes (Kuhn, 1970, p. 152), "... scientific revolutions are here taken to be those non-cumulative developmental episodes in which an older paradigm is replaced in whole or in part by an incompatible new one". The Islamic worldview shares this attribute of scientific revolution. Without fundamental invocation, there cannot be a substantive theory and premise for Islamic economics and finance, and thereby, the construction of the Islamic worldview and world-system.

Islamic economics and finance have thus far remained ambivalent to these essential and fundamental blocs of ideas. Instead, they have used axiomatic inferences that do not comply with the otherwise pervasively learning world-system that the Qur'ān presents. It is therefore incorrect to exhort on Islamic economics and finance to emulate the models and quantitative applications of the Western genre of formalism and empiricism. They remain incapable of comprehending the nature and logic of the *tawhīdi* (Oneness of God = unity of divine knowledge) dynamics. Even the idea of empiricism is differently presented, interpreted and applied in the Qur'ānic worldview in view of the interrelationship between methodology and methods, as was mentioned earlier. The Qur'ānic perspective of empiricism is contemplative and meaningfully contextual with respect to diverse problems of life and thought within a relational and unified world-system in the light of *Tawhīd*.

The epistemological origins of the learning world-systems according to the immutable principle of unity of divine knowledge in the Qur'ān is the central point of departure that delineates the great divide between Occidentalism and Islam and within the prevailing structure of thought in the Islamic scientific community. Imitation and prolonged ambivalence to the 'originary' foundations have been the main cause for the demise of Islamic economics and finance, tied presently as it is to neo-liberal capitalist doctrinaire.

While we will return to this epistemological problematique briefly later on, it needs to be alerted here that the grounds of invoking Western tradition in theory and empiricism are flawed. We will selectively refer to the problems of preference formation, capital valuation, the relationship between short-term and long-term interest rates, and capital formation vis-à-vis real money and the real economy. We will examine the conception of resource and resource mobilization of all kinds in the *tawhīdi* epistemological light. In mainstream economics we will examine these problems from the viewpoint of Western neoclassical institutionalism, the Austrian School of thought according to Hayek and earlier of Keynes against their inherent neo-liberal origins.

The problems and significant contrasts between the Islamic paradigm in *tawhīdi* perspective and that which is being Practised in Islamic economics and finance today commence from the distinct methodological approaches to the fundamental problematique of economic and financial theory, the nature of preference formation and the concept of aggregation. We will start from a critical examination of this central premise of economic, social and financial theorizing. The problem has escaped the attention of Islamic economics and finance in particular and Muslim scientists in general.

### **3. Knowledge-Induced Preference Aggregation in the Light of *Tawhīdi* Episteme**

Our critique of the present state of economic theory (Choudhury 2004a, 2004b) has revealed that the major problem of ethical irrelevance in economic theory in general and macroeconomics in particular arises due to the inability of explaining behaviour by a dynamic theory of endogenous preferences. These are preferences that evolve dynamically under the force of learning by interaction and consensus between discursive agents and in response to the enviroing transformation.

Furthermore, the absence of dynamic preference formation theory results in the aggregation problem of macroeconomics in particular. In general, preferences are prescribed exogenously in all of economic and social behaviour a la mainstream thought, governed as these are by the coterminous assumptions of scarcity, rationality, steady-state equilibrium and optimization. All of these combine to deepen the postulate of neoclassical marginal rate of substitution that is one-to-one related with the existence of steady-state equilibrium and optimality in resource allocation throughout mainstream economics and finance.

The consequence of marginal rate of substitution and of the conjoint state of steady-state equilibrium and optimum is analytical independence of preferences of the agents at the point of optimal rational choice. The novelty of learning dies away at such steady state and optimal points of resource allocation (Shackle, 1972). Goods, and thereby individuals, cannot interact in such optimal points underlying which are the postulates of competition for scare resources and thereby competition. The idea of process of interactive learning is not analytically explainable at such steady-state equilibrium-optimal points (Whitehead, 1978). Exogenous shocks revive the steady-state equilibrium and optimal states. But the new sequences of steady-state equilibriums and optimal states once again die away. Such perpetual recurrence of the steady-state equilibrium and optimal points of resource allocation protract the axioms of economic rationality, scarcity and competition perpetually in the non-changing structure of choices, menus, resource allocation and thereby behaviour and aggregate individual preferences underlying the theory of institutions and social contract (Hammond, 1987).

Preferences and menus at both the individual and aggregate level are formed of bundles of such independently and exogenously assigned states of economic

behaviour. Such preferences remain devoid of learning, are exogenously assigned and aggregated linearly. The dynamic and complex nature of learning preferences remains foreign to economic and financial theory, as does the conception of process. Islamic economics and finance have inherited this central debility of keeping learning as process in their formulations of conceptions and applications, when they borrowed heavily from mainstream economic and financial theory.

The *tawhīdi* epistemological-ontological-ontic methodology thoroughly replaces the missing issues of unity of knowledge in learning and process at the microeconomic and economy-wide levels. Learning by process and unity of knowledge embed choices and decision-making in endogenous preference formation. The characteristics of pervasive learning on unity of knowledge by discursive processes in and across embedded systems lead to the principle of pervasive complementarities among possibilities rather than alternatives as implicated by the postulate of marginal rate of substitution and its corollary the opportunity cost of alternative.

Thus, like all great paradigms the birth of any of them is deeply epistemological in nature. So is the Islamic methodological background of economic and financial reasoning when premised on the universal praxis of *Tawhīd* as the sole and pervasive attribute of unity of knowledge and its ontologically constructed world-systems. In such embedded systems that learn by process the postulate of marginal rate of substitution is fully replaced by the principle of pervasive complementarities between systems and their preferences, social contracts and explanatory variables.

With endogenous preferences, the process of learning between embedded systems and the embedding of the moral law (*Tawhīd*) in all such learning systems and their components, the duality as between micro and macro- economics is annulled. Morality must exist on economy-wide explanations of institutionalism and social contract, policy and governance. Hence the analytics of learning and endogenously interactive, integrative and dynamic preferences replace the exogenously assigned ones of microeconomics. They also replace the preference-benign methodology of macroeconomics. Indeed, the separation between microeconomics and macroeconomics is a pronounced mark of duality as a continuing mark of the divided knowledge barriers that characterize all of occidental intellectual thought (Capra, 1983). In the *tawhīdi* worldview no such insulation and discontinuity between disciplines is possible on grounds of the unique praxis of systemic unity of knowledge. Yet the diversity of problems of different systems remains. Systems are nonetheless interactively integrated and creatively evolutionary in the framework of unity of knowledge.

#### **4. Questions Concerning Endogenous Preferences and Learning Process under *Tawhīdi* Worldview of Unity of Knowledge**

How is dynamic aggregation of preferences, and thereby, of state and policy variables realized in Islamic economic and financial studies as premised on the *tawhīdi* methodology? How does the process model underlying learning emanate from and explain the *tawhīdi* unity of knowledge? How are ethics and morality made endogenously complementary with the state and policy variables at the social, economic and institutional levels, thus resulting in ethicizing world-systems?

An Islamic theory of endogenous preference formation in an ethico-economic general equilibrium system can be explained. To focus on a political economic issue we will focus on the interrelationship among money, price, output, spending as resource mobilization, factor utilization, technological change and the concomitant monetary and fiscal policy that revolve around a cogent set of Islamic development financing instruments. Such participatory instruments are the profit-loss sharing (*mudārabah*), equity financing (*mushārahah*), cost-plus mark-up (*murābahah*) and deferred payments (*bay' mu'ajjal*) as the primary ones. Secondary financial instruments revolve around these primary ones to further expand participation and co-operation in the framework of embedded systems and values in Islamic political economy.

We note below the methodological approach of mainstream economic theory on various critical issues. The current state of Islamic economics and finance has been thoroughly imbibed by such Western perspectives. Some comparative examination of the existing Islamic economic and financial approaches in the Western perspectives contrasting with the *tawhīdi* approach is mentioned below.

##### **1. Problem of Preference Aggregation in Mainstream and Islamic Economics**

In economic theory Adam Smith thought of introducing natural liberty within human behaviour in market exchange (Sen, 1990). But the Smithian transition from *The Theory of Moral Sentiments* to *The Wealth of Nations* could not sustain the endogenous role of human sentiments in preference formation, given the condition of *laissez faire*, within which the natural liberty was to work to make man free. Consequently, the moral law as an embedded dynamic process could not enter classical utilitarian preferences à la Jeremy Bentham (Coase, 1994).

Subsequently, the transmission of utilitarian ethics into institutionalism and social contract as in neo-liberal institutionalism caused lateral aggregation of individual preferences that are formed by self-interest and methodological individualism reflecting the aggregate preferences of institutions and governments. Today this is the perspective upheld by public choice theory (Buchanan & Tullock,

1999). Institutions in economic theory imitate the self-interested behaviour, which is explained by the lateral aggregation of groups and individuals. The meaning of utilitarian ethics in such a preference aggregation methodology is exogenously introduced and never changed except monotonically (Hammond, 1987).

Since time is an independent variable in neoclassical economic theory, preferences depend on time as datum. Thereby, ethical induction on preferences remains absent or constant. This underlying assumption of preferences is to establish the long-term steady-state nature of neoclassical equilibrium and optimization methodology. On the other hand, complex preference behaviour caused by interaction lead to evolutionary equilibrium states that distort price relatives to the extent that no predictability in the neoclassical sense can exist. On the side of production menus and factor resource allocation indeterminate production possibility curves and production isoquants result due to the complexity and fuzzy domains of learning processes affecting surfaces of production menus, factor allocations, decision-making preferences, state variables and policy variables. Such disparate results are true of both perfect and imperfect competition in mainstream economics in the light of the learning universe of *tawhīdi* methodology.

Next, at the level of classical and neoclassical macroeconomic theories the aggregation of utilitarian preferences using utility functions becomes non-functional. Yet the marginal substitution principle between competing alternatives prevails in the aggregate production function for factor inputs that are aggregates not in the sense of firm-specific lateral aggregation. The demand functions of such aggregate factor inputs are generated either by surveys of firms or by estimation using derived factor demand functions. In the latter case, aggregate wage/rental ratio and the demand for capital function are estimated ad-hoc.

From the above two kinds of approaches to preference aggregation we note the following nature of any ethical induction in economic theory:

Firstly, the predetermined or monotonic nature of preferences in neoclassical economic theory causes insensitivity of state variables to ethics. That is, the question as to how ethics are derived from the moral law and affect ethical preferences and transform them into a pervasively complementary nature of resource allocation cannot be answered in neoclassical economics and its roots in financial theory. Likewise, attained values of the state variables cannot change behaviour relating to the ethics of relationally complementary goods, factors, agents and resource relations. Only the principle of marginal substitution prevails defining the intrinsic nature of competition between alternatives and scarcity of resource allocation under the axiom of economic rationality governing choices and perceptions. Without the key postulate of marginal substitution and opportunity cost in resource allocation it is impossible for neoclassical formation of relative prices in economic theory.



Secondly, the aggregate nature of productive factors based on survey and estimation as mentioned above, cause ethics to remain mute in macroeconomics. They remain as datum in microeconomics. Thus no fresh demand is made on reframing the role of endogenous or systemically interactive ethics in the neoclassical economic system, except by means of perpetuating at large the singular assumption of marginal substitution principle and opportunity cost between competing alternatives. This is also the underlying assumption for the neoclassical economic states of steady state equilibrium, optimality and non-complex stability in resource allocation.

The uniqueness of marginal substitution between competing alternatives in the state of optimal resource allocation remains permanent in economic theory. In Keynesian macroeconomics the same postulate enters from the side of competition between savings and spending, and hence between capital and output, money and the real economy. Let us explain these points briefly.

## **5 The Austrian School of Economics and Professor Fredrick Hayek on Interest, Resource Mobilization and Entrepreneurship**

Hayek's Good Money Parts I and II (1999) present two kinds of economic dynamics. With respect to the allocation of money as resource over time he modifies the neoclassical idea of marginal rate of commodity substitution. Hayek (Good Money Part I) writes (pg. 195)

.... In a state of pure barter, the exchange between goods of the same kind available at different points in time will not as a rule take place at the ratio 1:1, but according to the circumstances can take place at any other ratio, and that what happens in this case follows precisely the same rules as does the formation of the prices of two different goods.

On the side of his process-oriented institutionalist theory, Hayek's idea impinges upon an entrepreneurial model of economic innovation characteristic of the Austrian legacy (Schumpeter 1961). By combining these two aspects of Hayek's thought we note that the entrepreneurial model is not altogether safe from the presence of interest rate that enters from the side of resource allocation.

The above argument is equivalent to the following one. The same argument can also be applied to the case of savings as net income after consumption and taxes. The issue is that such net income must be deposited or utilized in some financially rewarding way. There are two ways of accomplishing this. Firstly, the saving is held in interest bearing financial assets on the argument of mainstream economic theory that interest rates provide incentive to save in liquid funds that can be utilized as capital for investment after a period of liquidity formation. The savings being held in liquidity for speculative purposes post-spending thus cause a withdrawal of funds. The accumulated amount of savings may flow into the real

economy after a period of withdrawal of potential funds. The second way of holding savings is to mobilize them continuously into the real economy through financial intermediary. In such a case savings become resource mobilization and fail to have the meaning of macroeconomic savings as a function of income and interest rate. The subtle difference is in the Keynesian sense of savings = spending (investment) to occur continuously over time and not over a business cycle. Over the business cycle savings=investment occurs after a period of time as the economy nears a full-employment level of output. The continuous case is ruled out.

Thus entrepreneurial capital formed by savings remains a function of interest rates on such savings. Interest rates in such a case move between short- and long-run cycles. There is nothing in Hayek's thought to differentiate between the short and long run rates of interest. But from the nature of entrepreneurial economic transformation and the full role played out by the market process, on both of which Hayek champions, it is logical to deduce that the focus was on long-run interest rates. Now if money were to be mobilized through savings as a long-run process then the neoclassical roots of Hayek's thought would permit the prevalence of long-run rates to tie up with the process of entrepreneurial change. A contradiction occurs between Hayek's market catalysis for economic progress and the presence of long-run rates of interest entering from the side of long-term savings and thus a long hold of funds from potential mobilization.

Islamic economists and financial experts equate entrepreneurial activity in mainstream economic thinking with regimes of low interest rate, especially as vouched by the use of the participatory instruments, *muḍārabah*, *mushārahah*, *murābahah* and secondary financing instruments. These instruments and the analysis concerning them in micro enterprise development are treated exactly as in mainstream economics using the causality between savings and capital accumulation. Yet in mainstream economics capital formation occurs over a period of time of waiting through the route of interest rate either of the short or long run types earned on savings.

Islamic economists of mainstream persuasion argue that consumption under moderation, and the case of Prophet Yousef and Prophet Noah in the Qur'ān toward holding physical resources for future exigency, are forms of savings. This interpretation is a dire mistake. Savings out of net income are meant for resource mobilization in the Sharī'ah directions. The prophets held resource for future exigency not for financial gains or accumulation purposes but for evading 'expected' risk. Such a pooling of resources for future exigency is the case of Islamic insurance as Common Fund. In the end, even if savings in liquidity were to be allowed, contrary to the Qur'ān, then holding it without a return on it would be unproductive. Such a return would be either interest, which in itself is an unproductive cost on capital. Contrarily, if goods and not liquidity were held for future exigency, then it acts as a pool of contingency resource.

The mainstream economic theory of savings results from the underlying marginal rate of substitution and hence opportunity cost of the alternatives of holding resources in financial savings against injecting it into the real economy. Such a preference of choice is contrary to the Islamic view on the relationship between money, finance and the real economy. That is, in the form of a function of interest rate and disposable income accumulated savings forming capital comes in the economy as accumulated returns on savings after a period of resource withdrawal in the form of liquid savings.

In the Islamic resource mobilization theory contrary to the theory of capital via savings money is not to be held in savings. It is mobilized in the real economy by participatory means and instruments in Shari'ah compliant spending outlets. It is precisely based on such a well-defined circular causal relationship between money, finance and the real economy compliant with the Shari'ah that interest rate can be phased out and replaced by productive effects of resource mobilization. Thereupon, the relationship of entrepreneurship to money, finance and real economy is established over a phased out regime of reduction leading to abolition of interest rates.

## 6. John Maynard Keynes and Capital Accumulation

Keynes recognized the social evil and retrogression to productivity caused by interest rate. He found financial interest to be deeply embedded in the destruction of human wellbeing. Keynes (1963, p. 369) wrote:

The love of money as a possession – as distinguished from the love of money as a means to the enjoyments and realities of life – will be recognized for what it is, a somewhat criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease.

Yet in Keynesian economic methodology there is no final liberation from the rate of interest. Keynes called the low-level interest rate as the low-level liquidity trap. At this level a maximum effect of the income multiplier is realized.

A substantial difference exists in Islamic thinking on the above issues. To begin with, the dichotomy between macroeconomics and microeconomics is untenable in Islamic economic ideas towards resolving the contentious problems. That is, no macroeconomics can be developed along lines of the Keynesian type with a liquidity trap. We cannot otherwise derive any Islamic meaning by applying the dynamics of Keynesian-Hicksian General Equilibrium Analysis to the Islamic General Equilibrium Analysis with endogenous ethics and morality and ethical preference formation as Shari'ah-induced behaviour caused by continuous learning in such a system on the basis of *tawhīdi* unity of knowledge.

What then is the alternative procedure to measure the Gross Domestic Product, and thereby the aggregate variables in the economy-wide sense with ethical induction in such variables in reference to the microeconomic foundations of

aggregate economy-wide perspectives? In answer, the National Income and Accounting Identity for measuring GDP must be replaced by the Input-Output approach with microeconomic disaggregations such as sectors and projects at community and sub-regional levels.

In such a case, project specific and sub-regional and community specific Total Outputs (GDPs) along with their inter-connected output flows (intermediary or intersectoral outputs) and value added as final demand of goods and services can be directly linked to knowledge-induced ethical decision making and Shari'ah-driven preferences of agents. The input-output coefficients of such a knowledge-induced Input-Output Model become policy-induced when they remain to be simulated towards generating desired levels of 'inter-sectoral' linkages. Such intersectoral linkages are causally related with continuous augmentation of resource mobilization and structural changes in production menus as product-diversification, technological induction, risk-diversification and factor adaptation occur. Such conditions that are endogenously linked with policy-induced effects of intersectoral linkages as participatory effects together enable resource enhancing and 'inter-sectoral' linkages to be attained by policy selection (Choudhury & Hossain, 2005 forthcoming). The intersectoral linkages by means of learning and endogenous policy effects are the results of market-institutional learning dynamics. Thus the *tawhīdi* systemic unity of knowledge is invoked here as methodology and policy in the midst of learning by unity of knowledge across systems, their agents, preferences, menus and variables.

Such an intersectoral linkage approach in measuring GDP by the learning methodology of *tawhīdi* unity of knowledge uses a simulative method, for optimization is contrary to continuous learning in state and policy variables. Consequently, the expected value of  $GDP = GDP + \epsilon$ . Here  $\epsilon$  is that part of GDP that results from increasing returns to scale. The equilibriums of such a learning system are evolutionary in nature across processes of learning in the interactive, integrative and evolutionary processes (IIE-process or equivalently the *shūrātic* processes). Thus any measurement of the GDP by the Input-Output Model with learning variables and dynamic input-output coefficients remains only expectational, as a new process of learning take over the older one. Increasing returns to scale in production are realized in the *tawhīdi* system by the inherent complementary participation between factors and enterprise. It also would arise from the nature of dynamic basic needs regimes of development in the *tawhīdi* system, as by the Shatibi basket of Needs (*Dururiyyath*), Comforts (*Hajiyyath*) and Refinements (*Tahsanyyyath*). In such dynamic basic needs regimes of development, production diversification is combined with risk diversification, as the number of shareholders increase by the force of unity of knowledge in expanding participatory production menus intersectorally.

Therefore, while the mainstream GDP measurement is based on constant returns to scale with  $GDP (Q) = \text{total factor payments}$ , the *tawhīdi* case of GDP

measurement using the knowledge-induced dynamic form of the Input-Output model yields GDP ( $Q'$ ), such that  $Q'(\theta) = Q + \varepsilon(\theta) > Q$ ,  $\theta$  denotes learning in the *tawhīdi* IIE-processes (*shūrātic* processes). The output component  $\varepsilon(\theta)$  coming from increasing returns to scale rather being distributed as current factor payments instead is accumulated in a contingency fund to be used for ameliorating factor needs in times of exigency.

Besides, in the above explanation respecting the measurement of GDP by the knowledge-induced Input-Output model of the *tawhīdi* IIE-process dynamics, *zakāh* payment ( $Z(\theta)$ ) enters as a circular causation variable. It is now seen as a causally interrelated 'sector' with its inevitable knowledge-induced attribute interlinking as unity of knowledge between the sectors in the light of the *tawhīdi* epistemology and ontology of systemic oneness. Contrarily, in the National Income and Accounting Identity the entry of the  $Z(\theta)$ -variables as a separate variable cannot explain the circular causation that *zakāh* truly generates with all the other variables.

The dynamic coefficients and variables of the Input-Output Model explain the embedded system of IIE-processes that characterize the *tawhīdi* systemic worldview of unity of knowledge. Parsons and Smelser (1956) explain such an embedded social system of interrelationships as follows: A society needs interaction between the following functions in order to carry on with its development: Social Adaptation (A), Goal Attainment (G), Integration (I), Pattern Maintenance (L). But within any of these functions there are discernable effects of each of the other sub-sectors. This yields a matrix disaggregation of {A,G,I,L} into each sub-sectoral disaggregations as,  $\{A^a, A^g, A^i, A^l\}$ ,  $\{G^a, G^g, G^i, G^l\}$ ,  $\{I^a, I^g, I^i, I^l\}$ ,  $\{L^a, L^g, L^i, L^l\}$ , followed by still further levels of disaggregations.

## 7. The Supply Price of Capital

The context of duality between the two sectors and thus between multimarkets, namely the financial market with saving as the dominant factor formed by interest rate, and the real economy with spending as the dominant factor mobilized by productivity and profitability, now underlie the definition of the supply price of capital in such a dual, competing and dichotomous economy. The true present valuation of cash flows as the supply price of capital in macroeconomics ought to use the relative discount rate of ( $r/i$ , or  $i/r$ ), where  $r$  denotes the rate of return in the real economic ventures;  $i$  denotes the rate of interest in savings. The relative movement between these signify the transformation process towards or away from an interest ridden one as competition enhances between the savings and real sectors.

Due to the marginal substitution between these kinds of activities the same postulate can be reflected between two equivalent diagrams (not shown). In one diagram, the two axes would denote  $r$  and  $i$ , respectively. In the other diagram,  $r$  would correspond with the present value of cash flows generated by real economic

activity represented along the corresponding axis. It would correspond with the present value of cash flows generated by savings represented along the corresponding axis. The present value of cash flows linked with  $r$  is discounted by the relative price ( $r/i$ ), since this relative rate acts as an opportunity cost for the real sector. The present value of cash flows linked with  $i$  is discounted by  $i/r$ . In both cases the discount factor denotes marginal substitution of the two competing alternatives, namely  $i$  and  $r$ , equivalently saving and spending or the financial sector versus real economic activity, respectively. Such a marginal substitution postulate is derived from the neoclassical foundation of Keynesian macroeconomics.

### 7.1. Some Quantitative Implications of the ( $r/i$ , $i/r$ )

#### *Marginal Substitution Result*

The principle of pervasive complementarities replaces the neoclassical postulate of marginal rate of substitution and thus destroys the entire neoclassical theory and thereby mainstream economic reasoning. Consequently, a different method replaces that of neoclassical resource valuation. I now carry on with the critique of the received valuation method, which has persisted in Islamic economics and finance with added fervor.

Let  $D_0$  denote dividend payment on bonds at time  $t = 0$ , whose coupon yield is the rate of interest  $i$ . Let  $g_R$  denote the growth rate of dividends arising from real economic activity. Let  $g_F$  denote the growth rate of dividends arising from financial activity. These two sectors exist in competitive duality with each other.

According to our argument revolving around the ( $r/i$ ) and ( $i/r$ ) discount rates for the sectors dominated by real economic and financial activities, respectively, the present values of cash flows are given by,

$$1. \quad PV = \int_0^{\infty} D_0 e^{-(i/r - g_F)t} dt = D_0 / (g_F - i/r) > 0 \dots\dots\dots (1),$$

with  $g_F > (i/r)$ , i.e.,  $i < g_F / r$  for cash flows arising from the financial economy. Expression (1) yields the following result,

$$dPV / di > 0; \quad dPV / dr < 0 \dots\dots\dots (2).$$

$$2. \quad PV = \int_0^{\infty} D_0 e^{-(i/r - g_R)t} dt = D_0 / (g_R - r/i) > 0 \dots\dots\dots (3),$$

with  $g_R > (r/i)$ , i.e.,  $i > r / g_R$  for cash flows arising from the real economy.

Expression (3) yields the result,

$$dPV / di < 0; \quad dPV / dr > 0 \dots\dots\dots (4).$$

Expressions (1) and (2) show the tradeoff between  $i$  and  $r$  in respect to resource allocation in the financial and real sector duality according to the postulate of marginal rate of substitution. This is yet another way of stating that in the neoclassical roots of macroeconomics, the financial sector and real sector remain competing rather than complementary. Thereby, such sectors have their own versions of prices and returns. Through the trade-off between  $i$  and  $r$  financial resources get withdrawn from the real sector into the financial sector and vice-versa.

Islamic economists with the mainstream persuasion has for long now imitated and legitimized the use of the present-valuation of cash flows method, and thereby of the concept of time value of money. They have missed the understanding that the time valuation of money is simply the shadow price of interest rate. In this regard the argument runs as follows: Time value of money is the result of the postulate of marginal rate of substitution between the competing sectors of savings ( $i$ ) and real economy (mobilization of resources through the financial sector continuously to generate profitability  $r$ ). Marginal rate of substitution is rejected forever in the *tawhīdi* worldview of unity of knowledge between the two sectors that learn continuously in the IIE-processes. Besides, money pursues real goods and services in Sharī'ah compliant outlets with complementarities between them. In the future we are not sure under any circumstances about the existence of markets, the level of demand and changing human preferences under learning that is continuous and unifying between money and real goods and between the good and services. Thus we cannot price a fruit before it is borne; we cannot price a fish before it is landed for market.

Besides, the uncertainties of the future over preference change and continuous learning cannot be estimated as datum by probabilistic expected values. I surmise that such probabilities would be Quantum Field Probabilities around the actual occurrence of multiple possibilities in a fuzzy topological field. Such probabilities would be like those relating to Heisenberg's Uncertainty Principle (1958). The determination of the true nature of probabilities in complex fields of events had defied Keynes as he pondered over it (O'Donnell, 1989).

Contrary to the present-valuation method and its prototypes such as internal rate of return, certainty equivalent and asset valuation of shareholders' wealth the *tawhīdi* methodology of systemic unity between money and real economy presents an alternative valuation method. This is the valuation method by means of the overlapping intergenerational model. In it valuation of assets and returns is carried out by the moment-to-moment terminal value of a stream of cash flows 'nearest' to the point of their occurrence. The estimation of such moment-to-moment cash flows is carried out by two combined approaches. Since an equilibrium point permanently remains as an 'expectational' point that can be only approximated toward but never actually attained in the continuously learning model, therefore cash flows are expected values with a probabilistic correction for exigency by a

factor as in our earlier case of the  $\alpha(\theta)$ -value.  $\theta$  is the consensual assignment of a sequence of discoursed knowledge flows in the IIE-process of the *Shūrā* along with the abstraction of the ontology of understanding the dynamics of unity of knowledge for the particular problem at hand, that is valuation 'nearest' to a point of valuation. The second factor determining the probability measure of cash flows 'nearest' to the point of valuation is the institutionally guided discourse mechanism in the midst of the IIE-process. Valuation is thus explicitly a combination of market process and guidance according to the ethical rules of the Sharī'ah.

### **8. The Principle of Complementarities Versus the Postulate of Substitution in Human Capital Theory**

What is all the more an unresolved problem is the role that endogenous human capital plays in the production function (Romer, 1986), even when diminishing returns to scale is not assumed in the aggregate production function. What results then is a trajectory spanned by substitutes (gross or imperfect) linked with the positive effect of human capital on the productive factors in generating and continuing this kind of the substitution history. Yet on each of the production possibility surfaces so induced by human capital, the combination of the productive factors lie along a particular form of surface (hence trajectory) that shows perpetual marginal substitution between the competing goods (services) and factors. The consequence is once again one of limited and not pervasive complementarities between the competing variables. The reproduction of human capital in terms of its endogenous relationship with factors perpetuates the marginal rate of substitution between the factors and goods (services) (Turnovsky, 1995).

The central element of human resource development in every sphere of life is the instilling and functional understanding of the *tawhīdi* episteme in the systems framework of unity of knowledge. In the specific problems under examination the underlying principle of pervasive complementarities (the Qur'ānic principle of pairs in learning against the dissociate nature of rivalry as falsehood) must be functionally understood for applications and inferences based on this *tawhīdi* complemented worldview of unity of knowledge. Human resource development is thereby both a formal and vocational training as well as a matter of development in the learning-by-doing environment. In the educational system such a meaning of human resource development would go through the curriculum and training of the mind along the analytics of unity of knowledge in keeping with the *tawhīdi* principle of pervasive complementarities and the complexity dynamics that such educational development incurs. In the corporate world a similar human resource development will take place by the process of consensual discourse and interaction to understand and apply the principle of pervasive complementarities to particular problems, in keeping with the embedded precept of such problems within the embedded systems.



In all of the above directions and more the objective criterion of the simulation system of learning and organizing on the basis of the *tawhīdi* unity of knowledge is the social wellbeing criterion. It is simulated in connection with circular causation among the complementary variables of the social wellbeing criterion. On such a multidimensional perspective of problem solving in reference to the IIE-process of the embedded systems in unity of knowledge, the view of Gunnar Myrdal (1968) is noteworthy. He remarked that there is no such thing as an economic problem, a social problem and the like. There are only problems.

Thus a complementary approach toward understanding and solving the complex problems of corporate governance and performance in the real world must be headed off by the instilling and analytical functionality of the *tawhīdi* unity of knowledge worldview pertaining to the embedded nature of complexity in problem solving. In the world of entrepreneurship human resource development according to the *tawhīdi* worldview would proceed along the blueprint of interconnecting the various segments of the enterprise within it and across the community in the sense of sustainable development enabled by pervasive complementarities according to the Sharī'ah outlets with constructive discourse in and along the evolving IIE-processes.

At the community level projects for poverty alleviation human resource development will be understood as the application of the principle of pervasive complementarities in multidimensional ways of integrating the poor in discursive forums and cooperative ventures by the Sharī'ah instruments of development financing. Multidimensional choices of ways and means result in multiple and evolutionary equilibriums in the light of learning along the IIE-processes nearest to the points of choice.

Such evolutionary equilibriums of simulated learning are considered in the entrepreneurial models of the Austrian school of economics. See Schumpeter (1961) and Hayek (1945). Kirzner (1997) has recently considered such an entrepreneurial model of learning in the light of the Austrian legacy. The contrast with the *tawhīdi* methodology though is that while the Austrian school of economics has nothing to say on unification of knowledge and systems and Hayek openly claimed the legitimacy of marginal rate of substitution as a neoclassical postulate of resource mobilization, therefore such a silence is logically and totally rejected by the *tawhīdi* methodology of unity of knowledge as explained by principle of pervasive complementarities as per the paired universe of the Qur'ān.

## **9. *Tawhīdi* Approach to Resource Mobilization Theory**

Be it any form of resources -- financial, physical or human -- the *tawhīdi* episteme of unity of knowledge and ethical preference formation in the midst of discursive learning must necessarily place an ethical preceptor in the system under examination. This fundamental premise transforms all of macroeconomics into a study on the microeconomic analysis of preference formation and institutional

guidance. The issue was discussed earlier. In this light the resource mobilization problem of Islamic economics and finance would depend upon a microeconomic understanding of the relationship between money and project-specific financial mobilization using co-operative instruments as pronounced by the Shari'ah. The aim is to establish systemic unification between money and the real economy (Choudhury 1997). In this kind of formalism it is impossible to construct a negative relationship between the rate of return and output, as must otherwise be the case if we adopted the Keynesian-Hicksian IS-curve of general equilibrium analysis to Islamic general equilibrium analysis without a deep questioning. Likewise, the relationship between the rate of return and output remains positive. Thereby, no Islamic equilibrium consequences in the sense of the Keynesian-Hicksian IS-LM methodology can be explained, as these curves remain positively sloped.

Likewise, no Islamic meaning can be attached to the relationship between saving and investment over the business cycle fluctuations in the light of the Keynesian general equilibrium analysis. Only in the instantaneous case of saving = investment can a resource mobilization be understood. That too is true for the static case only. Forced saving and inflationary pressure cause inequality between anticipated investment and actual saving over the business cycle. Now the rate of interest remains endemic in such phases of business-cycle fluctuations.

In the light of the above explanation of resource mobilization as unity of systems attained by IIE-processes between the real artifacts and their mutual complementarities Islamic financial institutions assume a specific definition by function. Consider Islamic financial institutions such as the Islamic bank, Islamic insurance company, Islamic development institutions, Islamic trading house and Islamic institution of research and development. We examine a couple here.

In the *tawhīdi* methodological perspective an Islamic bank is an institution that mobilizes the resources of the community in Shari'ah compliant ways and by Shari'ah compliant instruments. Its objective is to attain desired levels of wellbeing for the community through participatory approaches in achieving such wellbeing. Such participatory approaches are derived from the foundational simulation problem of knowledge development that simultaneously establishes circular causation between the variables as relational ontology between all such state variables, policy variables, instruments and ethical preferences and possibilities instead of competing alternatives found in mainstream economics.

Islamic Insurance (*takāful*) is a non-bank financial institution complementary to the Islamic bank. It helps in product- and risk- diversification as a risk-management and resource mobilization institution. The principle of complementarities is attained through *takāful* by matching the flow of financial resources in Shari'ah compliant outlets and by managing shareholders risk for the Islamic bank. Besides, the instruments used by *takāful* revolve around the usual Islamic cooperative ones. Thereby the use of such instruments is matched with

those of the Islamic banks and performs participatory function for stakeholders and shareholders.

Insurance premiums cannot be fixed by distant future estimation of risk, as is being done by existing *takāful*. This is tantamount to *ribā* and is subject to all the conditions of the *ribā* Rule on rejecting pricing of unknown futures. Only the 'nearest' estimation of expected events can be done with a margin, as we explained earlier for increasing returns to scale of production in the *tawhīdi* embedded economic system. Indeed, there is no full information now as the embedded system learns continuously. The fixation of premiums is thereby tantamount to the actuarial valuation of future liabilities of the insured under assumed contingencies. This is no different from the conventional actuarial calculation of premiums under contingencies of risk. The premium cost is imputed by age, personal characteristics of the insured, the face value of policy and time to maturity, all compounded by assigned rates of interest.

In the light of the *tawhīdi* unity of systemic knowledge, the alternative to premium-based financing of *takāful* is the resource mobilization into diversified projects that are socially embedded in the Shari'ah meaning of social wellbeing for the mutual benefit of the insurance company and the insured. Such projects are product- and risk- diversified by the increase in opportunities and number of shareholders and stakeholders. The cooperative instruments that mobilize resources into Shari'ah compliant directions help to attain such reduction in risk and increase in return as the learning process on unity of knowledge in the embedded systems sense continues.

In all forms of *takāful* a one-year term insurance with the option for renewal and optional conversion is recommended. In such a case annual valuation at a nearest point of return by estimating risk and return can be possible by the overlapping generations model, mentioned earlier. Socioeconomic development through the integrated networking of Islamic financial institutions becomes sustainable in the one-year renewable term insurance.

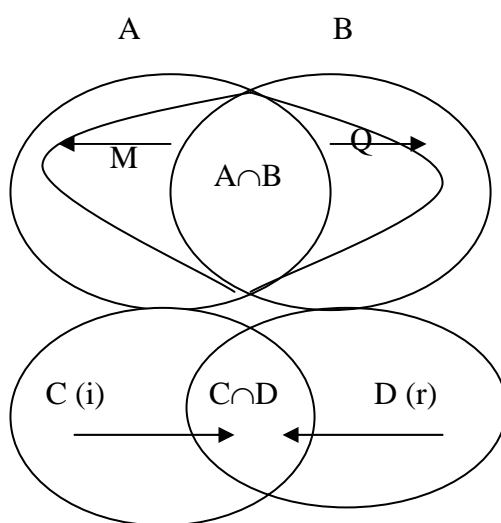
Two forces play their role here. Firstly, choices of new portfolios of investments properly diversified between short-, medium- and long- term investment outlets are realized. This is a market response. Secondly, ethical market transformation is guided by ethical transformation of preferences, menus and modes in cognizance of the institution-market circular causation affecting ethical formation. Thereby, socioeconomic choices in consumption, production, and technological and distributional menus are realized in reference to the social contract of the Shari'ah. Thereby, markets are not systems of invisible exchange. Rather they are systems of social contracts.

## 10. A Diagrammatic Explanation of the Islamic Money, Interest and Output Circular Causation Interrelationship

Carrying over from the discussion on money, resource mobilization and the real economy, it can now be deduced that there can be no emulation of the mainstream macroeconomic theory in the *tawhīdi* socio-scientific paradigm. In Figure 1 we provide a schematic presentation on the Islamic relationship between money, output and interest rate as opposed to such relationships in mainstream economics. The important perspective here is on the nature of the dynamics shown by the directions of change along the arrows. Subsequently, we configure the relationships between money, output and rates of return relative to interest rates ( $r/i$ ).

To explain this difference in the light of the Sharī‘ah we proceed only in a cursory fashion in this paper. No serious analytical explanation is invoked here.

Figure 1: Complementary and Opposite Economic Movements in the Light of the *tawhīdi* Episteme



A denotes money domain (M); B denotes output domain (Q); C denotes interest rate domain (i); D denotes rate of return domain (r)

$A \cap B$  is the interrelationship between money and output in the sense of the Sharī‘ah. Hence the Sharī‘ah effect as the effect on unity of knowledge is shown by the outward enlargement induction of this knowledge of unity between A and B.

Contrarily, the collapsing inward of the C and D sets as shown by the arrows indicate the knowledge induction on the increasing separation between the C and D domains through the causal effect generated by  $A \cap B$ . The limiting value is given by  $C \cap D = \phi$  with the advancement of Sharī‘ah.  $\phi$  is the null set. The knowledge of Sharī‘ah is denoted by  $\theta$ -values.

$$M(\theta) = M(r/i, Q)[\theta]; Q(\theta) = Q(r/i, M)[\theta];$$

$$r/i = f(M, Q)[\theta].$$

$$dr/di < 0; dM/dQ > 0. dr/d\theta > 0;$$

$$di/d\theta < 0; dM/d\theta > 0; dQ/d\theta > 0.$$

The difference between *tawhīdi* and mainstream economic and financial thinking is this: The knowledge dynamics underlying social productivity and ethical values in the *tawhīdi* episteme of unity of knowledge is unknown to mainstream economics. In fact, mainstream economics is not a study of a process-oriented world-system (Georgescu-Roegen 1971) that studies embedded systems and ethical behaviour. The role of  $r/i$  ( $r$  denotes the rate of return;  $i$  denotes the rate of interest) as an endogenous variable in relation to the evolving effect between  $M$  (money) and  $Q$  (output) under the impact of knowledge-flows by discourse, integration and creative evolution, as in the case of the *tawhīdi* epistemological and ontological construction, is unknown in mainstream economic, finance, social and institutional studies.

### **11. The Institutional Picture on Resource Allocation According to the Present State of Thinking in Islamic Economics and Finance**

Table 1 gives some principal financial information for a major Islamic financial institution (anonymous) in which the structure of the bank's investment can be noted, particularly emphasizing the complete absence of microenterprise financing and entrepreneurial development vis-à-vis poverty alleviation through productive transformation of the poor. The indicators of the human development Wellbeing criterion in this case are empowerment and entitlement and complementarities between genders in the light of an appropriate investment portfolio.

We note that it is not sufficient to merely distribute charity to the poor and needy as a proportion of the total charity in order to realize human development. Indeed, Table 2 shows a high percentage of spending in the poor and needy out of the total spent in charity, though the total in charity makes up a small percentage of net income. Contrarily, in improving human development it is necessary to use charity in productive and interlinked ways for uplifting the wellbeing of the poor and deprived. This is the ideal behind micro entrepreneurial development. Micro entrepreneurial development includes micro enterprise credit but with the dynamic finance-real economy guided linkages, as explained above.

The bank appears to have done efficiently well by mobilizing funds in ways that would indicate that a Sharī'ah approach to investment funding is being followed. In such a case, against the social impact of the bank in poverty alleviation, human development and micro enterprise development, the growing economic efficiency and profitability of the bank indicates that the wealth of shareholders is preserved. A tradeoff thereby occurs between the economic and social goals of resource mobilization.

Contrarily, the normative knowledge-centred participatory systems model of IEF is to promote interaction, integration and creative evolution (IIE) between markets, economy, institutions and instruments. A transformation process

involving relational epistemology, as was explained earlier, attains this function. Complementarities between economic efficiency and social justice comprise both the cause and effect of the circular causation and continuity in the IIE-process inter-relating the shareholders wealth objective with poverty alleviation through micro entrepreneurial capital augmentation (Schumpeter, 1961; Hayek, 1945).

Table 2 shows that financial return to shareholders and the mobilization of shareholders' equity as a ratio of total investments has remained high. This is a good sign of economic efficiency and for the Islamic modes of financing through *muḍārabah*, *mushārah*, *ijārah*, *istiṣnā'* and *ṣūkuk* as pointed out in Table 1. But the focus on wellbeing involving the uplift of the poor and needy through their productive transformation is not within the efficient portfolio.

The inference from reading the financial statement is that the Islamic bank noted here has been following the Sharī'ah procedures mechanically as opposed to understanding and adopting the substantial meaning of financing for an Islamic transformation. Consequently, the financing methods have not contributed to social wellbeing of the poor in the context of a micro entrepreneurial community.

Table 1: Financial Indicators For A Major Islamic Bank(US Dollars)

	2001	2000
Total Investment	35,658,989	23,260,739
Total Liabilities	71,406,905	64,653,836
Retained Earnings	6,936,026	4,788,361
Shareholders' Equity	60,999,688	59,063,352
Total Income	17,045,580	12,978,254
Net Income	1,908,463	1,302,685
Return on Unrestricted Investment Accounts (Depositors' Share of Income)	11,063,139	8,142,705
<b>Selected Investments</b>		
<i>Mudārabah</i> (Şukūk Leasing)	1,000,000	1,000,000
<i>Ijāra</i>	8,489,624	481,628
<i>Şukūk Salam</i>	1,940,000	1,940,000
<i>Mushārah</i>	3,376,927	2,443,696
<i>Istişnā'</i>	1,142,737	1,400,665
Real Estate	8,793,419	8,793,419
In Related Companies	4,935,083	4,935,005
Securities	5,973,342	1,718,681
Managed Funds	1,947,857	2,487,645
Total Investments	35,658,989	23,260,739
<b>Charity Allocation</b>		
Total	311,527	334,330
Poor & Needy	157,570	152,123

Source: A Major Islamic Bank (anonymous).

Table 2: Efficiency Ratios (Percentages)

	2001	2000
Depositor' Return/Total Investment	31.02	35.00
Equity/Total Liability	85.42	91.35
Retained Earnings/Total Investment	19.45	20.59
Poor & Needy/Net Income	8.26	11.68
Poor & Needy/Total Charity	50.57	45.50

The message in general is clear now. Islamic financial institutions are evolving along a line of activities based on a mechanistic understanding of the Sharī‘ah. In fact, the Sharī‘ah conception based on the learning dynamics did not evolve by a participatory discourse of the learned with diverse agencies of the Muslim community. There is no effective process in place in the Islamic institutions like the IIE-process of the Qur’ānic *Tasbih-Shūrā*. The *Shūrā* as process is comprehensively understood not merely as a mechanistic institutional consultation. Rather, more importantly the *shūrātic* process is that of knowledge reproduction by insight into the intellection process of unity of knowledge integrated with discourse enabling the directions and rules on how the episteme of unity of knowledge is actualized in the problems and issues at hand (Qur’ān 42: 38, 49-53).

A sheer literal interpretation of a particular injunction of the Sharī‘ah to safeguard shareholders’ wealth and thus the net worth of the Islamic institution, despite being a necessary condition of justice, fairness and accountability, is void as essence of the Sharī‘ah in the absence of realizing complementary balance and causal relations between different parts of the economic, financial and social order for attaining Wellbeing. The resulting state of tradeoff in resource allocation and decision-making vis-à-vis mainstream economic roots of the prevailing thinking in IEF is contrary to the paired universe of the Qur’ān (36:36). The Qur’ānic pairing of entities in world-systems is the defining basis of the Principle of Pervasive Complementarities across Diversity.

## 11. True Nature of Islamic Economic and Financial Studies

The above set of arguments is an illustrative example, not meant to be exhaustive in so many details that can be critically launched against the present state of Islamic economics and finance. This leads to a critical review. We reiterate here the nature of Islamic economic and financial studies in a different light in reference to the Qur’ān and the Sunnah as the basis of the *tawhīdi* epistemological methodology.

We need therefore to examine the nature of Islamic economics as an interdisciplinary paradigm that explains interaction over the domains of moral guidance (Ilm), laws (Sunnat Allah leading to the Sharī‘ah) and the formative world-systems according to such discursive impulses and processes. These interactive learning systems as processes have remained outside mainstream economic analysis. Mainstream economic doctrine and not the *tawhīdi* epistemological worldview has been thoroughly imported into Islamic Economics and Islamic Finance. This imitation rendered Islamic Economics and Finance incapable of being any different from mainstream economic and financial ideas. The substantive question of interaction, integration and creative evolution between diverse issues of embedded social, economic and scientific systems in accordance with the epistemology of *Tawhīd* (Oneness of God = unity of divine knowledge), which is particular to the Islamic worldview, is fundamental in the understanding



the nature and logic of economic behaviour and Islamic transformation in embedded systems with endogenous circular causations. Such a knowledge-centred process model transcends from the level of the individual and family to society, markets, institutions and the global order (Choudhury, Umar and Al-Ghamdi, 2003).

Without the *tawhīdi* episteme of Islamic economic, financial and social investigations, and thereby, the delineation and analysis of the emergent problems, there can emerge no Islamic reasoning regarding the abolition of interest rate, real economy, institutional and social order. The Western model of money and macroeconomic dynamics will continue to prevail. The *tawhīdi* and mainstream approaches of Islamic Economics and Finance are fundamentally different.

Other Islamic economists in this group have continued on to force deductions from the works of the scholastic Islamic scholars to fit the Western model and thought. In this regard see Oslington (2003) for a criticism of Ghazzanfar and Islahi (1990).

The Islamic world-system is established and its analytics constructed on the basis of the *tawhīdi* worldview as unity of divine knowledge spanning inter- and intra- systems that continuously interact, integrate and evolve in concert with the existential phenomenon of discourse, participation, linkages and ontologically with the abstraction of unity of the divine law embedded in the scheme of things. Discourse conveys the dynamics of the *shūrātic* process. Ontology to abstract the nature of the paired universe of pervasive unity of knowledge conveys the dynamics of *tasbih* (divine worship of the scheme of things). *Tasbih* and *shūrā* together manifest the dynamics of unity of knowledge emanating from the epistemology of *Tawhīd*.

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