

FINANCIAL GLOBALIZATION AND ISLAMIC FINANCING INSTITUTIONS: THE TOPIC REVISITED

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*This paper while being a study of its own subject matter is also a response to Professor Ali Khan's discussion paper entitled, "Globalization of Financial Markets and Islamic Financial Institutions" that appeared in Islamic Economic Studies, Vol.8, No.1 (2000:19-67). The topic of financial and economic globalization is studied in contrasting perspective between Occidentalism and Islam. The epistemology, model and approach of the formative ummatic globalization are brought out. Contrasting epistemological questions of morals, ethics and values that shape human behavior, institutions and approaches to well being in the global sense are examined from the viewpoints of Occidentalism and **tawhidi** (divine unity of knowledge) praxis. In the process of this thematic study the content of the paper by Professor Ali Khan on the same topic is critically examined. The normative structure of the progressive ummatic transformation and its positive implications within the framework of finance, money, real economy and global Islamic institutional relationships is examined.*

1. INTRODUCTION

The objective of this paper is to bring out the essential features of an Islamic approach to the globalization questions of financing development and commerce as trade and economic transactions. We will thus be making a parallel study of the processes of Islamization as a global (*ummatic*) and of capitalist globalization in the framework of finance, development and trade and economic transactions. In undertaking our study we will critically address many of the points that were brought up by Professor Ali Khan in his above-mentioned paper. We want to determine whether Khan has really addressed the substantive theme of globalization and Islamization with regards to the issues of finance, development, economic trade and transactions in the light of what he claims in his paper, "I shall therefore not begin at the level of practical detail, but move directly to the question in its broader philosophical context" (Khan, 2000:20).

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The issues then to be covered are the historical contexts of the concerns on morals, ethics and values to be found in the occidental history of commerce and globalization and its lineage to Greek roots. Next we will bring together such occidental historical contexts in relationship to the history of economic thought, particularly to show how the ethical issues were modeled in economic reasoning and which found their inroads in the theory of perfect competition and markets. We will inquire on the inseparability between the languages of markets and institutions within the framework of morals, ethics and values. This theme of unison between the two languages we will argue is an impossible task in all received doctrines of ethico-economics premised on the autonomy of scientific reasoning from 'the science of culture'. In this we will thoroughly reject all shades of neoclassicism and the ethical emptiness of the general equilibrium approach modeled by the proponents of perfect competition and markets. Thus, neoclassical offshoots of the concepts of moral hazards and adverse selection will be critically examined. Against the occidental and neoclassical origins of thinking on globalization and its adaptation to Islamization, as attempted by Khan, we will bring out a thoroughly new approach to Islamization and globalization both in its 'broader philosophical context', which too was an objective propounded by Khan. Unlike Khan on *riba*, a topic alluded to in his article (1992), our present paper will refer to Choudhury's (1994a) criticism of Khan's article on this same issue. We will thereby bring out the alienating nature of occidental globalization to morals, ethics and values in both its historical context and in contemporary times.

2. OCCIDENTAL ORIGINS OF MORALS, ETHICS AND VALUES

I refer here to the concept of ethics conveyed in the eighteenth century European Enlightenment by its leading philosophers, Immanuel Kant (see C.J. Friedrich, 1977), David Hume (reprinted 1992), Thomas Aquinas (see 1947 reprint) and Adam Smith (see Coase, 1994). The thrust of their arguments was on the need for divisibility between religion and science. The result was a conception and articulation of theories of morals, ethics and values based on humanistic rationalism. We argue here that rationalism and its opposite as the integrated worldview of life according to the epistemology of unity of knowledge are partitioned views of polar realities. Occidentalism has championed the rationalistic fervor. The result caused a *methodological* impossibility on presenting an integrated worldview premised on the episteme of unity of knowledge.

2.1 Rationalistic Foundations of Occidentalism According to Immanuel Kant

What is rationalism? Immanuel Kant propounded his theory of heteronomy and autonomy of the critical imperatives when he laid down his division between pure and practical reason (see Friedrich, 1977). Kant as an occidental Christian believer

did believe in the existence of God and thus gave his masterful contribution in the *Groundwork of the Metaphysics of Morals* (trans. Paton, 1964).

Kant wrote wonderfully on ethics and morals within the context of occidental civilization (Freidrich, 1977:261):

“Two things fill the mind with ever new and increasing awe and admiration the more frequently and continuously reflection is occupied with them; the starred heaven above me and the moral law within me. I ought not to seek either outside my field of vision, as though they were either shrouded in obscurity or were visionary. I see them confronting me and link them immediately with the consciousness of my existence”.

Yet in his categorization of pure reason, the *a priori* domain, Kant thought that because God and the divine law rest in the bosom of the unmixable with the real world of practical reason, the domain of the *a posteriori*, therefore the two are separable. The *a priori* itself was divided into a domain of God and the synthetic domain of pure reason (Carnap, 1966). These two parts of *a priori* reasoning could not mix, as God remained outside human reality according to Kant. Thus, in spite of the belief in God and in pure reason of the *a priori* type, there came to exist a permanent dichotomy between the domain of God and the domain of rationalistic *a priori* reasoning in Kant's theory of pure reason. This is Kant's problem of heteronomy. Kant argued that *a priori* reason, which is the seat of rationalism, was the fundamental epistemology. From this *a priori* rationalism originated the occidental world-system. Thus the *a posteriori* domain of practical reason, which Kant criticized as being non-substantive, derived its origin from the *a priori* roots of rationalism in pure reason. Kant wrote in this regard (see Freidrich, 1977:223): “the will is thought of as independent of empirical conditions and therefore it is thought of as pure will determined by the mere form of the law; this principle of determination is regarded as the supreme condition of all maxims”.

From Kant as the great Eighteenth Century Enlightenment occidental epistemologist the Western world inherited its permanent foundation of rationalism as opposed to the possibility of deriving a methodological worldview premised on unity of knowledge.

2.2 Occidental Ontology of Morals, Ethics and Values According to David Hume

David Hume argued in a reverse fashion, from the *a posteriori* domain to the *a priori* domain. Hume wrote (see the 1992 version:458):

“Reason is the discovery of truth or falsehood. Truth or falsehood consists in an agreement or disagreement either to the *real* relations of ideas, or to

real existence and matter of fact. Whatever, therefore, is not susceptible of this agreement or disagreement, is incapable of being true or false, and can never be an object of our reason”.

The sensate world became the origin of inductive reasoning in Hume’s methodology of scientific thinking, whereas it was the deductive way of scientific reasoning based on rationalism for Kant. It is relevant here for us to adopt the engineering definition of ontological phenomena (Carnap, 1959 and Maxwell, 1962) as a system of explainable relations that originates from a theory of knowledge. Epistemology thus leads to ontology. This definition avoids the other one, which defines ontology as the theory of being in metaphysics. Such a concept is not helpful to us in studying our globalization problems of world-system in this paper. With this understanding of the ontological concept, Hume deduced the reality of world-system from the ontological root. Kant derived it from the epistemological root. Hume’s ontological or inductive reasoning was more intensively rationalistic in character, for there was no specific precondition for God in this methodology. Consequently, the two forms of rationalism, of Kant’s and Hume’s, brought about different, opposing, conflicting and irresolvable perceptions of reality. The resulting world-systems of these dichotomous rationalistic perceptions presented divergent understanding of their inherent phenomena (Seidler, 1986).

The result of the relationship between the epistemological and the ontological is the so-called (Sherover, 1972) ‘ontic’ domain, which reads out the observed and cognitive effects of life and experience. But when the rationalistic dichotomy of the inductive and deductive, of the epistemological and the ontological are applied to the material and cognitive world, the emerging realities are also defined in the pluralistic sense. Pluralism itself is the political offshoot of the inherent order of independence, dichotomy and methodological individualism of the various competing groups of the ‘ontic’ domain. On the side of the totality of relations that emanate from the epistemological-ontological relations is the term, ‘episteme’, used in this sense by Foucault (see Dreyfus and Rabinow, 1983). In all therefore, we have rationalistic ‘ontic’ forms premised on Kant’s epistemological origins of the sensible *a priori* or on Hume’s rationalism of ontological relations of being. We also have the concept of the ‘episteme’ premised on either of these perceptions of a dichotomous nature.

2.3 Thomas Aquinas and the Morals, Ethics and Values of Scholasticism to Physiocracy

Thomas Aquinas, a leading Christian theologian and economic philosopher of the Eighteenth Century Enlightenment was a forerunner of the physiocratic school of economic thinking. He transmitted to physiocracy the idea of justice and fairness in economic dealings inherited from Greek origins of wealth, interest and just

pricing. As a theologian Aquinas abhorred the role of interest in economic dealings, thus emulating Aristotle, who abhorred accumulation of wealth but nonetheless accepted it as an unavoidable 'evil' (Barker, 1959). Likewise, Aquinas despite his ethical prognosis of interest, accepted the 'market rate of interest', which enters resource allocation as a long-run natural rate of return on money and finance (Blaug, 1968). As a theologian, Aquinas believed in the divisibility of the body and soul of God. Such a belief entered the Thomist idea of morality, ethics and values that took one form in the pure belief system and a depreciated form in the experiential order (Aquinas, reprinted 1947), thus asserting the primacy of reason over faith. Aquinas wrote in this regard: "Whether the gift of knowledge is about divine things? Hence the knowledge of Divine things is called wisdom, while the knowledge of human beings is called knowledge, this being the common name denoting certitude of judgment, and appropriated to the judgment, which is formed through second causes. Accordingly, if we take knowledge in this way, it is a distinct gift from the gift of wisdom, so that the gift of knowledge is only about human or created things." (1947:1211).

The moral origin of economic dealings as understood by the occidental scholastic schoolmen was implanted into the physiocratic concepts of *jus divinum* and *jus pretium*. The divine law influencing the fairness of just pricing was a topic of interest for Quesnay and subsequently found its influence in the agriculturally centered productivity concept of the Tableau Economique that was forwarded by Turgot (Schumpeter, 1968). In the formulation of these concepts and in defining the agriculture-centered sectoral linkages of the Tableau Economique, ideals of justice and fairness took divided roots in theory and reality. This was of the nature of Kantian heteronomy and of the nature of rationalistic divide between inductive and deductive reasoning or between epistemological and ontological reasoning in the theory of knowledge pertaining to political economy.

2.4 Adam Smith and the Morals, Ethics and Values

We next examine the nature of morals, ethics and values in Smithian thought. The epistemological basis of Adam Smith's economic thought was human sympathy and human freedom. These precepts were derived from the Natural Law of Liberty, and were laid down in Smith's *The Theory of Moral Sentiments*. Choudhury (1995a:124) has shown mathematically that "... only these mappings are applicable because according to the rationalistic premise of Smith's order like Kant's, the Divine order is to be explained by the limits of reason alone. Consequently, self-actualization and human enactment are all explained by this rationalistic premise." Coase (1994) notes that self-love is the foundation of both *Wealth of Nations* and *Moral Sentiments*. He also points out the remarks by Jacob Viner on the inconsistency between the Smithian views in these two texts. We can read the contrast between the two Smithian views from the following quotes. In *Moral Sentiments* there are many passages on human benevolence and sympathy

on fellowship. Smith writes, “Nothing pleases us more than to observe in other men a fellow-feeling with all the emotions of our own breast” (p.13). On the contrary, Smith writes in *Wealth of Nations* (p.26-27): “It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.” Such contradictory passages on the nature of morals, ethics and values in the individual and society sound the nature of dichotomy that we found in Kantian and Humean approaches to the understanding of scientific reasoning.

3. INFERENCE ON MORAL AND MATERIAL DICHOTOMY IN OCCIDENTAL WORLD-SYSTEM

What do we conclude from the above philosophical grounding of moral, ethics and values in occidental understanding of scientific reasoning and its transmission to the socioeconomic order? Dichotomy and opposites mark the central feature of independence and methodological individualism of agents and relations in occidental world-system. This is a *methodological* issue, not an accident. The peculiar methodology is derived from and in turn reinforces human nature and the social order of Occidentalism on the premise of its epistemological and ontological roots. Morals, ethics and values then take shape in this crucible, despite the many impressive reference to these attributes by occidental scholars. Consequently, when we come to the theme of globalization, trade, commerce, economic transactions and markets, the same methodology becomes the basis and its concepts of morals and ethics become artifacts.

Take the case of a neoclassical theory of globalization. In it, competition and efficiency becomes the centerpiece of private decisions. Economic efficiency, and consequently, economic growth are narrowly defined in terms of private average cost functions and the accumulation of savings as capital. A social cost function is inappropriately configured by internalizing social cost within the private system of computation (Makhijani, 1962). Finance and real economic activities become marginal substitutes of each other by competing for their independent rates of return between financial capital and real rates on investment. Financial capitalism thus arises as the commanding order by dint of its incentive on saving and capital accumulation serving the goal of long-run optimal economic growth. Consequently, speculative capital, interest rate and short-term financial issues abound, resource depletion accelerates as capitalists aim at short-run profitability in short-lived ventures (Korten, 1995). The social disruption of financial capitalism in the midst of globalization is a methodological issue premised on the neoclassical theory of marginal substitution. Here complementary relations between possibilities rather than the prevailing substitutes cannot be pervasive and long-lived (Yolles, 1998). In the area of international trade, the goals of optimal economic growth, export revenues on staples and massive resource reallocation

from the agricultural to the industrial and information technology sectors versus increasing indebtedness, plummeting commodity prices and exchange values, have today marked the global marginal substitution between long-run technology and well-being. Mehmet referred to these predicaments as Eurocentric development (Mehmet, 1995). The consequences of these disabling conditions on economic bondage to the programs and policies of the Bretton Woods Institutions are particularly alarming. This is evidenced by the case of the crippling socio-economic conditions in Indonesia, of the Highly Indebted Poor Countries (HIPC) and global financial uncertainty and instability, paradoxically caused by the excessive and costly build up of information technology and high tech intangibles (Hall, 2001).

Such a process of growth of capitalism through a particular form of marginalist relationship in resource allocation and pricing of capital is methodologically inherent in its theory and application, institutional and social development. Thus the marginalist substitution hypothesis of neoclassical economics, which has become entrenched in the goal of economic growth and financial versus real economy resource allocation function, is a sign of the nature of dichotomy and competition between social equity (distributive justice) and economic efficiency. Such a conception based on competition and marginal substitution is a derivative of the rationalistic dichotomy about which we have mentioned above. The end result is transmission of these same characteristics of rationalism into the world-system of globalization.

4. FIRST CRITIQUE OF PROFESSOR ALI KHAN'S PAPER: IN VIEW OF THE EPISTEMOLOGICAL PREMISE

Khan by his over-reliance on quoted passages from various books in the West accepts the leaning of these authors toward charity, goodness, fairness, justice and the warning against deprivation that can be caused by the relationship between commerce and globalization, as a certain universal message on moral and ethics relating to commerce and globalization. Yet he does not fathom the epistemological and ontological nature of the concept of morals, ethics and values in Occidentalism as a whole. Khan's paper has thus premised the moral corrections of globalization, commerce and financial authority on the rationalistic moral origins of Western thought. The gap between substance and utterance is wide in a system that *methodologically* fuses into it the marginalist substitution doctrine, competition and independence, methodological independence and autonomy. These cause the moral code to become exogenous neutral from the epistemological origins.

This methodological perspective of capitalism with respect to capital accumulation and a theory of social system is laid down by Heilbroner (1985:26): "The logic of social formations is not therefore merely a playing-out of economic

movements that arise from their behavior-shaping nature. Rather, the grand logic of societies embraces all large-scale and long-lasting institutional or cultural changes that arise from whatever source". With regards to an application of this principle of social formation in the context of capital formation under capitalism, Heilbroner continues on to expand on the money-commodity-money (M-C-M) reinforcing relationship. In this relationship, money is conceived as the beginning and end of the capitalist objective criterion. Such a central goal of converting money capital into more of the same through the process of accumulation and monetization of productive means, endows the meaning of capital with that of a process. Heilbroner writes (1985:36-37): "Capital is therefore not a material thing but a process that uses material things as moments in its continuously dynamic sense. It is, moreover, a social process, not a physical one. Capital can, and indeed must, assume a physical form, but its meaning can only be grasped if we perceive these material objects as embodying and symbolizing an expanding totality."

In the theory of capitalism we thus note a deepening process formation pertaining to a particular relationship between capital and finance, the M-C-M relationship. This relationship expands in scope with the growth of global capitalism and the function of interest as the return on savings. In the end the commodity, C-component, becomes a service component as financial institutions capitalize their financial assets at the expense of real economic ones by means of monetization. Global capitalism thus becomes a grand financial capitalist transformation. Underlying this transformation is the general theory of capitalism as Heilbroner outlines it. In such a transformation the principle of neoclassical marginalist substitution necessarily rules supreme as the part and parcel of the concept of economic efficiency with its enhancing relationship to capital accumulation and economic growth and its marginalist substitution with distributive equity and social justice. These are the neoclassical manifestation of a rationalist regime of autonomy, heteronomy and methodological independence that we noted emerged from the epistemological-ontological foundations of Occidentalism (Choudhury, 1989).

Khan has missed to make the epistemological-ontological foundation of Occidentalism as a relevant component of global financial capitalism upon which a particular social relationship is established. From such a structural relationship ensue the meaning of morals, ethics and values that are specific to capitalism as a *process*. In the marginalist substitution that ensues within the neoclassical orientation of global financial capitalism as opposed to pervasive complementary relations among economic and ethical possibilities, the ethical parameters become methodologically embedded in a competing and marginalizing domain of human actions and responses. Khan is therefore not searching the right sources for the universal precept of morals, ethics and values.

5. THE SECOND CRITIQUE OF PROFESSOR ALI KHAN'S PAPER: GENERAL EQUILIBRIUM MODEL OF PERFECT COMPETITION

5.1 The Process Model of Complexity versus General Equilibrium Model of Perfect Competition

The neoclassical orientation of global financial capitalism leads us to our critique of Professor Ali Khan's method of remodeling perfect competition for the ethical case. Can this be done or is it a fiasco? Sen (1990) called the rational utilitarians as 'rational fools'?

Professor Khan argues that with the introduction of dynamic endogenous preferences, a theory provided by Choudhury (1987, 1990) for sometime now, which would make the perfectly competitive model of markets and resource allocation usable, ethics could then be introduced into the Arrow-Debreu-Hahn kind of general equilibrium model of perfect competition. Khan then uses the usual asset capitalization model to assert that it can be used to measure the risk-return behavior of savers in a risky situation.

What is the flaw with this approach to the diversification and measurement of behavior under the condition of risk? The expected utility function is essential in the above-mentioned approach. The utility function must necessarily have gross substitutes in it. Otherwise, there cannot exist relative prices of substitutes on which the utility function is defined. In the form, $u = u(c)$, the assumption is that there is a *numeraire*, which normalizes the consumption variable c . Thus, $c = c'/M$, goods as consumption (c') relative to money as *numeraire*. If there is an allocation price for c , it is because goods and money substitute each other while keeping the price of money as 1. Thus, a smooth frontier combining goods and money can be drawn. The relative marginal utility of goods determines the relative price of c with respect to the *numeraire* price of money, that is 1. Underlying this demand-side price determination is the fact that consumer preferences are exogenously pre-assigned. The question then is, how does dynamic preferences enter the method to cause learning along the consumer indifference curve of price determination and resource allocation on c , that is between c and M ? Contrarily, if such endogenous preferences define the utility function, whereby complementary relations can exist between c and M and not marginal substitution, as otherwise in the case of neoclassical theory, then the consumer indifference curve would be perpetually of a complex nature under the impact of such a complementary relationship signifying continuous learning. A *process model* must now replace the optimal model of asset-value capitalization as formulated by Khan. For recent writings on endogenous preferences, pricing and resource allocation the reader may refer to Choudhury (2000a).

The argument I am presenting here in favor of *a process model* as opposed to a terminal point optimal model of steady state or dynamic steady-state equilibrium is expressed in the writings of Shackle (1972:97):

“Equilibrium is a solution, and there is, in the most general frame of thought, no guarantee that a problem which presents itself, unchosen and undersigned by us, will have any solution, or that it will not have an infinity of solutions. In either case, there is no prescription of conduct”.

5.2 A Critique of the Asset-Valuation Model of Perfect Competition

The criticism against Khan’s asset-valuation model on measuring risky ventures in a global capitalist framework is now extended to the problems of moral hazard and adverse selection. These two are treated in the literature in terms of neoclassical methodology (Ichiishi, 1997). Moral hazard and adverse selection situations are conditions of imperfect competition caused by deliberate institutional strategies that restrict sharing of information. It is important to note here that perfect information model is not being used for a criticism of the above concepts. Rather, the institutional strategies impeding information flow is at point. Think of a tripartite relationship between two firms (two individuals) and the government. Government has the responsibility of promoting and establishing economic cooperation as opposed to economic competition in society at large. This knowledge diffusion is made to occur as a public good of education and knowledge sharing, as complementary technological advancement and joint ventures come about. The impact of such public knowledge sharing process with productive and information sharing incentives brings about the institution of cooperation among the agents. The result is a minimization of the moral hazard and adverse selection problems under conditions of shared, though not perfect, information. In such a learning environment, endogenous preferences and production menus are once again invoked to cause such an endogenous ethico-economic transformation (Choudhury, 1998a).

The usual form of production function, utility function and consumer indifference curves are all fundamentally changed to endogenous relations in the methodology of pervasively complementary relations among goods, agents and technological change. I suggest the reader should try out a general equilibrium model of perfect competition in price-setting and resource allocation using the production possibility curve (producer’s problem) and the consumer indifference curves along with the common budget line. With pervasive learning representing the condition of shared information and the complex nature of interrelationships among agents, variables and their relations, the attainment of an optimal point of steady-state equilibrium, static or dynamic, will be permanently defied. The *method and the methodology* of neoclassical resource allocation and pricing usually used will turn out to be a fiasco. These will have to be replaced by complex

simulation *methodology and method* premised on knowledge-centered complementary relations (Choudhury, 1999a; Choudhury and Korvin, forthcoming).

Upon our critique of exogenous preferences of a perfectly competitive model and its methodologically impossibility to fuse in endogenous preferences we now examine Khan's arbitrage pricing model with k exogenous factors that measure the expected return of a financial portfolio. In relation to the argument on endogenous preferences of decision makers in the choice space, it would be impossible to associate any of the exogenous factors to explain endogenous decision-making. The learning parameter of the endogenously induced model of choice defines the new well-being function. The well-being function as the criterion now replaces the utility index. Thus a random return of a risky portfolio or its equivalent expected returns cannot be determined by a linearly independent probabilistic aggregation of random factors, such as exogenous preferences, moral hazards, adverse selection and information flow. The knowledge-induced nature of endogenous preferences in the new choice model becomes of an extensively complementary type in factors, which otherwise Khan has taken to be exogenous.

5.3 Asset-Pricing Arbitrage Model of Perfect Competition

One of the critical exogenous factors of the asset pricing arbitrage model is the discount rate, defined either in the random space or converted into their expected measures. The expected return of Khan's arbitrage pricing model is then the discounted present value of probabilistic future returns. The *riba*-issue regarding the discount rate methodology and its consequences in the valuation of assets is an extensive topic, to which the reader may turn to Choudhury (1997). For the present, the critique can be simply understood in terms of the absence of the neoclassical concept of opportunity cost and its measurement in the asset valuation model that is induced by endogenous preferences and complementary conditions of learning in complex domains, as was referred to above. Furthermore, financial saving in Islam carries rates of returns not in the form of time value of money, which is interest rate. Rather, it is the link between money and the real sector that transmits the value of goods exchanges to the value of money. On this ground there is ignorance on the future existence of markets, exchange and valuation of assets that must all be pre-conditions for the real value of monetary stock. Here no expected valuation does the job, for all probability would be subjective in nature, despite their mechanistic measurement but not real existence. We thereby do not have a real measure of risk or scarcity value of capital for postponement of consumptions and incomes from the present to the future, as would be read on a precise rate of discount. For alternative methods of asset-valuation one is to adopt simulation methods of intergenerational asset-valuation with contiguous generations assigning the real rates. For a simple version of the underlying asset-valuation approach see Choudhury (2001b).

5.4 The Methodological Impossibility to Explain Organically Endogenous Preferences in General Equilibrium Model of Perfect Competition

In the end, we note as a critique in this section, that Khan's acceptance of the usual perfectly competitive model of general equilibrium has led him to an incoherent method for realizing the hopes that he embodied in his objectives. His important premise was to "bring together what is normally kept separate under different disciplinary boundaries" (p.21). This indeed is a goal of political economy using complex methodology. I have explained it at length elsewhere. In this paper I have referred to such a study as complex problem-centered study of political economy and world-system (Choudhury, 1995b). On the *epistemologically premised complex methodology for world-system* study see Wallerstein (1998).

The methodological impossibility of the neoclassical perfectly competitive model of general equilibrium in incorporating complementary knowledge-induced relations has denied Khan's goal of introducing endogenous preferences in such a model. Even the idea of ethically endogenous general equilibrium system analysis of political economy of globalization results in evolutionary learning equilibrium replacing the steady-state dynamic equilibrium concept of perfect competition. An altogether different story is inherent in the case of evolutionary knowledge-centered general and complex systems. Such a model is truly capable of incorporating the interdependencies of the globalization process in competing paradigms that are different from the 'linear model of learning' to be found in the classical and neoclassical foundations of capitalist globalization along with its markets, commerce and institutions. Heilbroner and Milberg (1995:7) comment on the methodological limitation of the 'linear economic model' of existing economic science: "Much of this extraordinary indifference can be traced to the starting point from which modern analysis proceeds. This is the assumption that forces located within "the individual" constitutes the conceptual core of economics, a core that is itself immune to further deconstruction, but that can be taken as the foundation on which the sciencelike properties of the discipline rest. As a recent graduate text in microeconomics states, "What most economists would classify as noneconomic problems are precisely those problems that are incapable of being analyzed with the marginalist paradigm" (Silberg, 1990).

5.5 Inference Drawn

In conclusion to this section we note the terminal inability of the general equilibrium model of perfect competition in endogenizing ethics with economics. This is a theme central to the episteme of unity of knowledge as opposed to the marginal substitution view of the ethically neutral neoclassical worldview.

The treatment of endogeneity of preferences, prices and objective functions of economic agents presents fresh vista for economic theory. In this approach neither realism nor rigour of political economy is sacrificed. The mathematical side of this knowledge-centred endogenous approach to models of political economy speaks in favour of interactive preferences among the agents of change. Such preferences in turn are made up of evolutionary epistemologies across learning systems and socially meaningful orders. At the end, what we have in these endogenous systems of preferences is a concept of evolutionary equilibrium continuously regenerated by interactions, evaluations, adaptation and change. The stringent restrictions of concavity of utility, convexity of preferences (thus economic rationality) and purely competitive core-based Pareto-optimal economic equilibrium, are no more required to build a scientific approach to economic theory by sacrificing realism. They are now extended by mathematical axiomatization with different goals, approaches and results in mind.

From our arguments there appears to be a definite need for a mathematical axiomatization of economic theory. But such an axiomatization must be comprehensive across a whole range of politico-economic issues, problems and content. Our conclusion therefore, does not negate the importance of mathematics in the development of an axiomatic economic theory. It only seeks an open-ended possibility of mathematics toward understanding the inner structure of political economy; to provide precision of logic and language and imbue realism to economic theory within the mould of a globally interactive framework of economy, society and institutions. The presence of public goods, ethical values, institutional presence and a theory of economic policy, are all to encompass essential reality beyond mere scientific evaluation of ideas (Myrdal, 1987). Yet such a research program must be scientifically meaningful on consistency, explanation and usefulness for the common good.

6. THE THIRD CRITIQUE OF PROFESSOR ALI KHAN'S PAPER: THE ISLAMIC PERSPECTIVES

Parts IV and V of Khan's paper are detached from the other parts. The implications of the previous parts on occidental issues of finance and globalization within a perfectly competitive framework of general equilibrium and ethics and values are not cogently built into the Islamization context. In the previous sections I have argued that such an extrapolation from Occidentalism to Islam is impossible on epistemological grounds of their contrasting worldviews on morals, ethics and values.

6.1 The Cooperative Model of Ummatic Transformation

Professor Khan accepts the fact that a competing model of economic organization of life is negated in the Qur'an for a cooperative model. If this point is

well understood then the invocation of the general equilibrium model of perfect competition is rejected for modeling the Islamization approach within globalization. Khan has not employed a rigorous concept of Islamization as a new kind of globalization force but treated the two as parallel developments in the world scene. Thus, there is no particular idea presented on the nature of methodology to formulate the financial and developmental consequences of a new concept of globalization within the Islamization perspective. Contrarily, Khan takes a positive economic approach by recommending acceptance of the nature of the world as is and to study the Islamic possibility within the prevailing context. He suggests avoidance of a normative approach within which a learning process of emergence of the *ummah* can finally emerge in progressively better forms as the Islamic globalization worldview. This is our concept of the non-optimal but formative and progressive *ummah*. I am thus avoiding here the ideal concept of an optimal *ummah*. The model of complexity that I have suggested in this paper for the study of complex and interactive and integrative processes with creative evolution would not allow methodologically the attainment of such an optimal goal within it.

Because of the absence of a proposed praxis for an *ummatic general systems* approach, Professor Khan has missed the central and indispensable theme of such a worldview. This is the praxis of *tawhid* as a functional model of unity of knowledge manifested by the complementary relations of diverse forms that can complement according to Shari[ah]. Such a praxeological idea is completely absent in Khan's paper. Consequently, there is no articulation on the nature of relations between money, financial instruments and the real economy that must necessarily exist in the framework of unity of such systemic knowledge. On the contrary, when such endogenous relations are modeled and applied, the new architecture of money, finance and real economic development in integrated markets become a powerful medium for Islamization of the economies, financial systems and developmental outcomes. Intersectoral linkages proceed forth and complementary relations of consumption, production and distribution emerge, causing extensive complementary relations to occur between productive factors through the interactions between institutional and market realities (Choudhury, 1993). International trade theory is now governed by the same perspective of linkages and complementarity with diversification of production and sharing of risk between joint ventures (Choudhury, 2000b). Money and real sectoral linkages with the instruments of economic cooperation establish a discursive medium of interactions and integration among Shari[ah] possibilities. This is the sure way of mitigating the presence of interest in financial markets and replacing it by productive yields that our new C-M-C-M-etc. relationship realizes through endogenous linkages of money with Shari[ah] governed possibilities (Choudhury, 1997) commencing from the real sector valuation and proceeding on in the circularly endogenous relationship between C, M and onwards to evolutionary linkages with new values of C and M.

The consequential moral and ethical premise of *ummatic* transformation are derived from the episteme of *tawhīd*, oneness of God or the unity of divine knowledge. This episteme is made to define its unifying function in life through the Shari[ah financing and development instruments. The inextricable relationship between God, world and the Hereafter becomes the guiding Qur'anic principle of *ummatic* transformation. These form the *tawhīd* episteme of Islamic moral and ethical codes (Choudhury, 1993). In meaning they are polar to the moral and ethical values of Occidentalism, wherein God remains in an independent domain of non-interaction with living experience and the Hereafter has no functional meaning on the conduct of the unity of life.

In the historical context as well, Professor Khan's paper presents no insight on the nature of Western intervention on the commerce and globalization under the Ottoman Rule that spanned over 600 years from the thirteenth to the nineteenth century. The prevalence of the Shari[ah among the Ottoman Sultans was always denigrated by the occidental powers. This negative interpretation of Ottoman history has filled the pages of history in the West (Garraty and Gay, 1972). The commercial power of the Ottoman had to be destroyed by the monetization of Ottoman debt by the British Government. This caused hyperinflation in the Ottoman World during its last days. These are lessons of history that should teach the Muslim World regarding today's Muslim caution over the programs and policies of the Bretton Woods Institutions formed in the industrialized world. The Muslim World must remain self-reliantly within herself by gaining increasing autonomy from the Bretton Woods Institutions (Choudhury, 1998b).

Adoption to the Shari[ah across the Muslim World is not an immediate possibility; yet this is a dynamic process. The transformation process of the progressive *ummah* cannot be awaited for its optimally full-blown time in the unknown future. Shari[ah transformation at the level of Islamic banking in concert with local and global capital markets in the Muslim World, with the sub-nation of Islam in the West, and across Islamically segmented markets are sure ways of progressively moving towards a future Islamic transformation. The program of microenterprise development and the enhancement of real sectoral linkages between money, finance and the community is a grassroots development process that manifests the principle of unity of knowledge in a general systems perspective (Choudhury, forthcoming). These are avenues for attaining human well being through the process-based approach of gaining complementary relations among Shari[ah possibilities. This unique premise would define the Islamic world-system through the promotion of international trade, segmented markets, appropriate technology, financial and socio-political institutions in Muslim communities.

7. CONCLUSION

7.1 Lender of Last Resort in the Ummatic Global Scene

The question regarding an institutional lender of last resort in the Muslim World can be answered upon a bold and assertive acceptance of the challenges that the normative model combined with the positive model of unity of knowledge as the Islamic worldview brings about. This is a complex methodology dealing with an extensively complementary and relational worldview of unity of knowledge (*tawhidi* episteme). Its functional form arises from the pervasively interactive, integrative and evolutionary methodology as derived from the Qur'an and further explained by the *sunnah* (see Choudhury, 2001). The epistemological foundation of morals and ethics in Islam and in the Islamization process within *ummatic* globalization is so derived from this *tawhidi* episteme. Its connotation, texture, meaning and implications for living world-systems and human and scientific cognition are contrary to the rationalistic foundation of morals and ethics of the occidental genre.

7.2 The Languages of Markets and Polity

The knowledge-centered endogenous general systems approach as a methodology in the complexity of interacting organisms of Shari[ah possibilities defines the potential field of the *ummatic* globalization process. Its theoretical, conceptual and practical implications form the unique language of markets and polity within this same interactive, integrative and evolutionary field of *ummatic* transformation. There are no different languages for markets and polity in this framework, as otherwise Professor Khan invokes in his languages of markets deduced from Wittgenstein. In the praxis of unity of knowledge manifested uniquely in all systems, there is no difference in the languages, rather simply a vast domain of diverse problems, issues and possibilities upon which the complex relations between finance, commerce and development must rest.

Choudhury (1994a) has critiqued Khan's paper on the languages of markets. Khan argued in favor of a low and so-called acceptable form of *riba* that the market theory legitimates under the language of pure competition. This is simply market consequentialism, which is now applied to the forbidding or the acceptance of *riba* as scarcity price of money based on its degree of hurtful effect. I repeat here my arguments against Khan's (1990, 1992) papers:

“Khan's application of Wittgensteinian language game to the economic theory of *riba* separates it from the question of ethical relevance. The subject matter is thus compartmentalized in a closed economic order – the perfectly competitive market order. Upon referring to the Qur'anic meaning of *riba* as increment out of waste and injustice, we find the

following inference (*ahkam*): *Riba* is exogenously speculative in the cost of production and distribution (allocation) either of financial assets or real assets/goods. Its actual magnitude is not at point here to categorize *riba* as moderate or exorbitant. The very existence of a *riba* mechanism is intrinsically distortionary as an analytical variable. Thus, the methodology of an ethico-economic analysis becomes part and parcel of the Qur'anic treatment of *riba* simultaneously as an ethical and as an analytical problem in question. Furthermore, these two conditions are coterminous processes in the determination of any socioeconomic reality in the Islamic order.

The inference from the integrated treatment of ethical and economic issues as simultaneously coterminous ones is the essence of universals in Qur'anic epistemology. Such universals pervade inter-systemically. The theory of language games thus loses its relevance by dint of its individuating character. All subsequent consequences of methodological individualism, independence, exogeneity of preferences, and non-interaction in the underlying language game of the economic model, now pervade the kind of inference on *riba* proffered by such a methodology" (pp.486-7).

The relevance of a lender of last resort in the financial field with the movement towards an *ummatic* globalization process carries with the responsibility of promoting and putting into effect the *ummatic* process of change. This is both a normative and positive approach premised on the *tawhidi* worldview. In the formation of such an order underlying participatory grassroots and well-being precepts, the methodological understanding and application of the Shari[ah within the principle of unity of knowledge (*tawhid*) must play key roles in the *ummatic* globalization outlook of development financing institutions of the Muslim World. The praxis of creative evolution through interactions and integration in the methodology of unity of knowledge (*tawhid*) forms the unique language of all socio-scientific systems, despite diversity in the problems that emerge. In this paper this unique language is explained in the case of *ummatic* globalization against the capitalist globalization, whose praxis instead is premised on competition and methodological rationalism.

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