

Toward the Shari'ah Paradigm of Islamic Economics: The Beginning of a Scientific Revolution

by
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I. INTRODUCTION — THE MAJOR CRITICS OF ISLAMIC ECONOMICS:

This paper attempts to respond to the critics who, on various grounds, oppose the development of Islamic economics. The author feels that a scientific response to these critics is the responsibility of the Islamic economists. It is believed that such a response would be educational for the critics and their followers. It would enable them not only to understand the scientific nature of Islamic economics but would also allow them to appreciate that the development of the Shari'ah paradigm of Islamic economics is, in fact, the beginning of a scientific revolution in economics.

Given the bases of their arguments, these critics of Islamic economics can be classified into the following three schools of thought.

1) The Adjusted Capitalism School:

According to this school the fundamental principles of the Islamic economic system are the same as those of capitalism. In support of this assertion they point out that like capitalism, Islam also allows the right to private property, free enterprise, and market economy. They, however, acknowledge that certain adjustments need to be made in capitalism to bring it in conformity with Islamic principles. They hold that these adjustments should be made according to Islam's distinction between Haram and Halal, and Islam's teachings in financial and fiscal areas; namely, *riba* and *zakat*. According to this school, if these areas of capitalism are adjusted according to Islamic requirements, then the adjusted form of capitalism will be nothing but the Islamic economic system. Thus this school holds that the conventional economic theory,

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with only a few adjustments, is fully capable of generating the Islamic economic system. Hence, they see no scientific justification for the development of Islamic economics toward the creation and establishment of an Islamic economic system.

2) The Conventional School:

This school believes that there are major discrepancies between Islamic economics and the conventional economic theory. These discrepancies are an evidence that Islam's teachings cannot be transformed into an economic system which will be consistent in its functioning and structure. Thus the adherents of the conventional economic theory are opposed to the development of Islamic economics, and hold that conventional economics is the only scientific basis for creating and establishing a workable economic system.

3) The Sectarian Diversity School:

According to this group, Islamic economics lacks a scientific basis; and is merely a reflection of certain religious beliefs. The adherents of this school point out that efforts to develop Islamic economics will result in intellectual chaos because of the following two reasons:

- a) Islamic economics lacks a scientific basis
- b) the existence of different sects in Islam

In view of these perceived problems, this group holds that Islamic economics will be plagued by a diversity of opinion and will be dominated by sectarian influences. Thus, they are opposed to the development of Islamic economics, as to them, an effort in this area is an exercise in futility.

We find that the adherents of the *Adjusted Capitalism School* do not see any difference in the fundamentals of the Islamic economic system and capitalism. Here we disagree with them. We claim that, fundamentally, Islamic economic system is very different from capitalism. As a matter of fact, it is the existence of these fundamental differences that provides the scientific justification for the development of Islamic economics. In Section II, we will discuss this scientific justification in detail.

The adherents of the conventional school do understand that the fundamentals of Islamic economic system are very different from the fundamentals of capitalism, but despite this fact they are not ready to accept this reality that Islamic economics deserves to be developed in its own right. Their lifetime training in conventional economics, and their intellectual dependence on the western economists demands loyalty to conventional economics. They demonstrate this loyalty by opposing the development of Islamic economics. But their opposition has no scientific basis; and therefore, we will discuss the case for the development of Islamic economics starting in Section II.

Finally there are those who argue that Islamic economics is nothing more than a few religious beliefs; and even these beliefs lack uniformity and direction due to the existence of different sects in Islam. Thus they hold that it is neither theoretically possible nor practically feasible to develop Islamic economics.

Our response to them is based on the scientific facts of paradigm building. We argue that it is because of these religious beliefs that the paradigm of Islamic economics deserves to be developed; and the diversity of opinion within a paradigm is perfectly in line with the traditions of paradigm practitioners. Thus if, in Islamic economics we have difference of opinion due to sectarian influences, the existence of such differences is perfectly in line with scientific traditions. Differences in opinion do exist in Physics, and they do also exist in conventional economics.

What is needed is not the abandonment of the efforts to develop Islamic economics, but to try to understand the nature of economics as a mature and normal science; and then see the place of the differences in opinion in the scientific structure of economics.

This brief discussion on the criticism of Islamic economics proves that the critics lack the understanding of economics as a science, and that Islamic economics does have a scientific basis. It is because of this that Islamic economics does occupy a place in the scientific structure of economics.

Our response to the critics is an argument in two stages. In the first stage, we develop the scientific basis of Islamic economics and show its place in the structure of the science of economics. Once this is established, we can offer our response to the critics individually.

II. ESTABLISHING THE SCIENTIFIC BASIS OF ISLAMIC ECONOMICS:

It is evident from the above discussion that those who criticize the development of Islamic economics, do so because of their lack of understanding the fact that economics is a mature and normal science. An awareness of this fact would allow them to understand the structure of economics as a science (as shown in Chart No. 1). This understanding of the scientific structure of economics would enable them to appreciate the place of Islamic economics vis-a-vis capitalism and socialism (as shown in Chart No. 2). The following discussion on the scientific justification of Islamic economics also includes an explanation of the two charts mentioned above.

a) The Structure of the Economic Science:

Given that economics is a mature and normal science the scientific basis of our efforts to develop Islamic economics lies in the fact that the paradigm of Islamic economics is different from the other paradigms of

economics. This statement needs further elaboration.

We start by acknowledging that economics is a normal science. "Normal science means research firmly based upon one or more scientific achievements that some particular community acknowledges for a time as supplying the foundations for its further practice. Today such achievements are counted, though seldom in their original form, by science text books elementary and advanced."¹

Within a community of scientists, engaged in research in a given normal science, there may exist different paradigms. The term paradigm is defined as "Some accepted examples of actual scientific practice—examples which include law, theory, application, and instrumentation together—provide models from which spring particular coherent traditions of scientific research."² In the context of the science of economics, two widely known paradigms at present are: the Marxian paradigm of socialism and the market economy paradigm of capitalism. The paradigm of Islamic economic system is the Shari'ah, which is fundamentally different from these two paradigms. Every paradigm in economics is based on certain philosophic foundations and is a system of belief.³

The structure of economic science is shown in Chart No. 1. This chart is drawn on the basis of the structural organization of a normal science as discussed by Thomas Kuhn in *The Structure of Scientific Revolutions* (1970). The chart shows that an economic system is the outcome of the paradigm that it follows. The choice of the paradigm is reflected by the behavioral pattern of the individual units in the society. The behavior of the individual units is in fact the basis of the microfoundations of the system. The philosophy in which the individual believes is crystallized by its behavior.

b) The Scientific Structures of Capitalism and Socialism:

Using the structure of economic science, Chart No. 2 shows the place of Islamic economic system vis-a-vis capitalism and socialism. This chart shows that the philosophic foundations of capitalism are in laissezfaire. The behavior of the members of a society that believes in laissezfaire is symbolized by the *economic man*. The economic man believes in utilitarian rationality and is dictated by the commands of the *invisible hand*. The behavior of the economic man is the basis of the microfoundations that logically lead to the market economy paradigm. Using this paradigm the conventional economic theory builds the economic system known as capitalism.

¹Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 2nd ed., enl. Chicago: University of Chicago Press, 1970, p. 10.

²*Ibid.*, p. 10

³R.C. Edwards, M. Reich, and T.E. Weisskopf, *The Capitalists System*, 2nd ed., Englewood Cliffs, New Jersey: Prentice Hall, 1978.

A society based on the philosophic foundations of dialectical materialism chooses a different course. In this case the basis of the microfoundations lies in the fact that under this philosophy the private ownership of the means of production is not allowed. The resulting relationships lead to the Marxian paradigm of economics. This paradigm builds the economic system called socialism. The scientific structure of socialism in the context of economic science is shown in Chart No. 2.

c) *The Scientific Structure of Islamic Economics:*

A society whose members adopt Islam as their *way* of life will develop the Islamic economic system. The scientific structure of Islamic economics is shown in Chart No. 2. Following is the explanation of the scientific structure of Islamic economics.

Like other economic systems, the Islamic system is also rooted in certain philosophic foundations such as:⁴

- i) *Tawhid*: God's Unity and Sovereignty.
- ii) *Rububiyyah*: Divine arrangements for nourishment and directing things towards their perfection.
- iii) *Khilafah*: Man's role as God's vicegerent on earth.
- iv) *Tazkiyah*: Purification plus growth.
- v) *Accountability*: Belief in accountability on the Day of Judgment and its implications for life in this world and in the Hereafter.⁵

As a result of these philosophic foundations, the behavior of the representative economic agent in an Islamic society can best be characterized as the Muslim (i.e., one who submits to Allah).⁶ The behavior of the Muslim man is very different from that of the long celebrated economic man. Quran's position on the economic man's attitude towards life is very clearly stated.

"Some say, Our Lord, give us
all the good things here in
this world. Such people shall
have no share in the Hereafter."
(2:200)

⁴Khurshid Ahmed, *Studies in Honour of Mawlana S.A. A'la Mawdudi*, UK: The Islamic Foundation, 1980, p. 230.

⁵M. Arif, "Towards Establishing the Microfoundations of Islamic Economics," *The Islamic Quarterly*, Vol. XXVIII, No. 2, Second Quarter, 1404/1984, pp. 61-72.

⁶M. Arif, "Toward a Definition of Islamic Economics: Some Scientific Considerations," *Journal of Research in Islamic Economics*, Vol. 2, No. 2, Winter 1405/1985 (forthcoming).

Quran also gives a clear description of the behavior of the Muslim man:

“Then there are those who say,
Our Lord, give us what is good in
this world and also what is good in
the Hereafter and save us from the
torment of Fire. Such people will have
their due share (in both worlds) according
to what they earn. And Allah is swift at
settling accounts.”

(2:201-202)

Quran frequently mentions that the individual who believes in Islam and also practices it, shall have only one course in life, i.e., obedience to Allah and His Prophet Muhammad (p.b.u.h.). The references of some of the verses emphasizing this behavior are: (3:32), (3:132), (5:92-93), (8:1), (8:20-21), (24:54-56), and (58:13).

A Muslim man is the one who has a commitment in life.*7 He believes

*A.K. Sen, in his enlightening essay entitled, “Rational Fools,” discusses the question of one’s commitment in life. He argues that the modern economic theory, due to its limited structure, is not capable of studying the behavior of the economic agents who have a commitment in life.

The question of commitment is very important as it affects the entire human behavior and the criteria used by the economic agents in their decision making. Sen argues that the inherent structural weakness of the modern economic theory keeps it from studying the behavior of the economic agents who have a commitment in their life. This commitment affects their actions and decisions. Sen’s criticism is based on the fact that the modern economic theory considers the ‘economic man’ as the representative economic agent and thus uses the theory of revealed preferences to make generalizations about the rational ‘human’ behavior on this basis. This implies that according to the modern economic theory ONLY those choices of a person are considered rational which ‘can ALL be explained in terms of ONE preference relation consistent with the revealed preference definition, that is, if all his choices can be explained as the choosing of ‘most preferred’ alternatives with respect to a postulated preference relation’ (Sen, p. 92). Sen argues that the economic theory of utility which relates to the theory of rational behavior has TOO LITTLE structure. ‘A person is given ONE preference ordering, and as and when the need arises this is supposed to reflect his interests, represent his welfare, summarize his idea of what should be done, and describe his actual choices and behavior. Can one preference ordering do all these things? A person thus described may be ‘rational’ in the limited sense of revealing no inconsistencies in his choice behavior, but if he has no use for these distinctions between quite different concepts, he must be a bit of a fool. The PURELY economic man is indeed close to being a social moron. Economic theory has been much preoccupied with this *rational fool* decked in the glory of his ONE all-purpose preference ordering. To make room for the different concepts related to his behavior we need a more elaborate structure’ (Sen, p. 102). This structure should be such that it allows the ‘important distinction between a person’s ‘ethical’ preferences and his subjective preferences: the former must express what this individual prefers (or, rather, would prefer), on the basis of impersonal social considerations alone, and the latter must express what he actually prefers, whether on the basis of his personal interests or any other basis. This dual structure permits us to distinguish between what a person thinks is good from the social point of view and what he

that his purpose in life is to achieve *falah* by being successful in his role as the vicegerent of God on earth. His success in this role depends on, among other things, the acquisition, allocation and disposition of the resources, which are a trust, according to the consent of Allah.

Thus, it is the Muslim man's behavior which serves as the basis of the microfoundations that logically lead to the Shari'ah. This microfoundations' link between human behavior (in an Islamic society) and the Shari'ah paradigm, is the scientific basis of our efforts to develop the Islamic economic system. It shows that our efforts to develop the Islamic economic system based on the Shari'ah paradigm are fully consistent with the traditions of paradigm building. Thus Islamic economics deserves to be developed in its own right as its scientific structure uses a paradigm which is different from the market economy paradigm of the conventional economics.

III. THE REPLY TO THE CRITICS:

1). The Misconceptions of the Adjusted Capitalism School:

As mentioned earlier in Section I, the adherents of this school find no fundamental difference between the capitalism and the Islamic economic system. They believe that capitalism, with certain adjustments of Haram-Halal and *riba*, can be transformed into an Islamic economic system. Therefore, they do not see any justification to develop Islamic economics.

Our discussion in Section II shows that their position is not supported by the scientific facts as shown by the structure of economic science. Chart No. 2 clearly illustrates that there exist serious fundamental structural differences between the two economic systems; namely, capitalism and the Islamic economic system. Capitalism, cultivated by the conventional economic theory, uses *laissezfaire* as its philosophic base. Whereas the philosophic foundations of Islamic economics are very different from *laissezfaire*. Similarly the basis of the microfoundations of capitalism lies in the behavior of the economic man. The behavior of the Muslim man, on the other hand, is the basis of the microfoundations of the Islamic economics. The behavior of the Muslim man, serving as the basis of the microfoundations, leads to the Shari'ah paradigm of Islamic economics. Whereas capitalism is based on the market paradigm which is the

regards as good from his own personal point of view' (Sen, pp. 102-103). Given this broad based structure the role of commitment can be studied in the economic decision making by the individual. It is here that the economic man fails to represent the economic agents in an Islamic society, while the Muslim man with his commitment in life becomes the basis of a larger structure of economic theory which is developed by the Islamic economics.

⁷A.K. Sen, "Rational Fools, in *Philosophy and Economic Theory*, edited by F. Hahn and M. Hollins, Oxford: Oxford University Press, 1979, pp. 87-109.

logical outcome of the economic man's utility-oriented behavior. Such fundamental structural differences between the two systems prove that it is technically wrong to assert that capitalism can be adjusted to work as the Islamic economic system. Islamic economic system is established to facilitate solution of the basic economic problem of the Muslim man; namely, the organization of the resources, which are a trust, to achieve *falah*.⁸ This is neither the goal of the economic man nor the matter of concern for capitalism.

2) The Weakness of the Conventional School:

These circles admit that Islamic economics is significantly different from conventional economics. Instead of treating these differences as the justification for the development of Islamic economics, they treat these differences as the deviations from the so-called established (standard) philosophy; therefore, they think that this deviation cannot lead them anywhere. This view of Islamic economics is unscientific and shows that those who hold this view are unaware that as a normal science economics has its own scientific structure (as shown in Chart No. 1). It is on this basis of complete scientific structural composition that Islamic economics is being developed. This scientific structure of Islamic economics is shown in Chart No. 2. Here we should be able to differentiate between two things: namely, recognition of versus adherence to Islamic economics. Recognition of Islamic economics does not necessarily mean that one adheres to it as well. For example the economists who adhere to capitalism do recognize the existence of Marxian paradigm; but this recognition does not imply that they are in agreement with it.

The economists who believe in capitalism/socialism and refuse to recognize Islamic economics on the grounds that it is a deviation from the conventional economic theory/socialist philosophy (which is a standard to them), are being unscientific. We have shown that Islamic economics is founded on sound scientific bases, therefore, the efforts to develop the Shari'ah paradigm are scientifically justified. We have also shown that Islamic economics has a complete scientific structure; namely, it has its own philosophic foundations, a scientific basis for its microfoundations, and the Shari'ah paradigm. This complete structural composition of Islamic economics demonstrates that it has full scientific potential for development. Thus the argument that it is a deviation from the conventional theory, and it does not make sense, therefore it should not be developed, is a position that shows lack of understanding of economics as a normal and mature science.

⁸M. Arif, "Toward the Definition of Islamic Economics: Some Scientific Considerations," *Journal of Research in Islamic Economics*, Vol. 2, No. 2, Winter 1404/1985 (forthcoming).

3) The Confusion of the Sectarian Diversity School:

The adherents of this school criticize the development of Islamic economics on the grounds that Islamic economics is nothing more than the reflection of religious beliefs, and that it lacks a scientific basis. They further argue that efforts to develop Islamic economics will fail to produce any fruitful results because of the existence of different sects in Islam. Each sect will interpret Islamic principles in its own way, creating a diversity of opinion and confusion.

These critics are making two fundamental mistakes. Firstly, they fail to understand that, in principle, it is the beliefs that provide the philosophic foundations of a system (please see Charts: 1 and 2). In the development of capitalism the belief in laissezfaire philosophy is the cornerstone of the system. Similarly, in the development of socialism it is the belief in the philosophy of dialectical materialism which serves as the philosophic foundation of the system. In the same scientific tradition Islamic beliefs serve as the philosophic foundation of the Islamic economic system. This ensures that the emerging paradigm of Islamic economics will be consistent with its philosophic foundation, as is the case with capitalism and socialism.

Since economics is a normative science, it deals with the behavior of the members of a society, and is based on their beliefs and moral values. These beliefs and moral values lead to the development of relationships and institutions that create a system. The role of beliefs and values in shaping an economic system is candidly acknowledged by Joan Robinson in her book, *Economic Philosophy*. Emphasizing the role of beliefs and values, she says:

“It is no good trying to pretend that we can think or speak about human questions without ethical values coming in.”⁹

The second criticism by this school is in regard to the sectarian differences. They argue that these differences will cause diversity of opinion in Islamic economics. Such a diversity would cause intellectual chaos. Those who put forward such criticism seem to be:

- Ignorant of the scientific structure of economics
- Ignorant of the history of economic thought in connection with paradigmatic developments and transformations.

We accept the possibility of differences in opinion due to the sectarian interpretations of Islam. This means that different sects may evolve their own approaches to Islamic economics by applying different rules.

⁹John Robinson, *Economic Philosophy*, Chicago: Aldine Publishing company, 1962, p. 14.

It will be a proof of our ignorance of the scientific phenomenon if we assume that such differences in rules/opinions only exist in Islamic economics. It is quite common for scientists sharing the same paradigm to apply different rules to study a given phenomenon. This practice is fully in line with the established scientific traditions in all sciences. A community of scientists may identify and share a common paradigm. But the members of this community may still be divided into different groups, where each group applies its own rules to achieve the desired results, within the framework of the same common paradigm. This is as true of physics as it is of economics. Kuhn admits that the attempts to spell out the uniform rules that guide research within a given paradigm can be frustrating. It is thus the diversity, and not the uniformity of rules, that is a norm in a given paradigm of a normal science. Kuhn acknowledges this problem within the structure of a normal science in the following words:

“Scientists can agree that a Newton, Lavoisier, Maxwell or Einstein has produced an apparently permanent solution to a group of outstanding problems and still disagree, sometimes without being aware of it, about the particular abstract characteristics that make these solutions permanent. They can, that is, agree in their identification of a paradigm without agreeing on, even attempting to produce, a full interpretation or rationalization of it. Lack of a standard interpretation or of agreed reduction to rules will not prevent a paradigm from guiding research.”¹⁰

This diversity of opinion due to the differences in beliefs is quite pronounced in the case of the conventional economic theory. A study of capitalism shows that among those who follow its market paradigm, there exist, a number of so-called *sects* (i.e., schools of thought), as each sect believes in different rules to analyse and study the given phenomenon. These *sectarian* differences, due to the beliefs in different rules, are shown in Chart No. 3. This chart shows that even the widely celebrated neo-classical paradigm of economics lacks the uniformity of rules. Within the neo-classical paradigm there exist three main sects; namely, the Monetarists, the Supply Siders, and the Rational Expectationists. All these three, scientifically speaking, are perfectly legitimate as they owe their origin to the philosophic foundation of perfect *laissezfaire*. These three *sects* also share the belief that the market economy paradigm, with a built-in price-auction mechanism, is the only right way to solve a given economic problem.

¹⁰T.S. Kuhn, *The Structure of Scientific Revolutions*, University of Chicago Press, 1970, p. 44.

a) The Monetarists take an orthodox position by holding the view that although prices fluctuate adjustments are not speedy as the real world consists of short-run fixed prices and long-run flexible prices; and time lags are also involved in price adjustments. They oppose the government's policy activism on the grounds that given the price-auction model, such activism would cause instability in the system. But unlike the Rational Expectationists they hold that the government is not totally ineffective. They believe that the government can, in fact, stabilize the economy by following the *rules*, and can cause instability by using *discretion*.

b) Then there are the Supply Siders and the Rational Expectationists whom Thurow calls *fundamentalist*.¹¹ The economic fundamentalism advocated by these two sects is fashioned after the recent surge of religious fundamentalism. "All over the globe, we have recently witnessed a return to religious fundamentalism. In my view, the return to the equilibrium price-auction model in economics represents a parallel development—a desire for certainty in a world that is, in the last instance, uncertain."¹² Their fundamentalism is evident from the fact that they have a perfectionist view of the market economy paradigm. They hold that in their price-auction world flexible prices bring speedy adjustments, and that the government policy is in no way capable of either stabilizing the economy or improving its performance. This perception of the government policy is different from that of the orthodox sect (i.e., the Monetarists) who believe that a *right* monetary policy, based upon the correct *rules* can stabilize the economy.

(c) But the fundamentalists, despite having common beliefs about the speedy adjustments and the ineffectiveness of the government policy to improve the situation, disagree with each other in terms of their respective interpretation of the rules that govern the functioning of the system. The Supply Siders believe that since the economic actors are rational and have perfect information, in the absence of private monopolies, the economy will never malfunction but for government intervention. Thus whenever the economy's performance is bad, a removal of government interference will bring stability and economic growth, as the incentives will motivate the economic agents to make the right work and investment decisions. According to this version of economic fundamentalism the government can both hurt and help the economy. It can hurt by expanding its interference, whereas it can help the economy by removing its interference.

d) The Rational Expectationists are the other fundamentalist sect. Their beliefs are:

¹¹Lester C. Thurow, *Dangerous Currents: The State of Economics*, N.Y.: Random House, 1983, pp. 124-172.

¹²*Ibid.*, p. xix.

- i) Perfect speedy adjustment through the price-action market;
- ii) The inability of the government policy to improve the performance of the economy.

These fundamentalist beliefs are the same as those of the Supply Siders. But the Rational Expectationists deliver a very different prescription on the basis of their interpretation of the rules that govern the functioning of the system. They hold that since the economic agents are perfectly rational, therefore, government policy is absolutely ineffective, i.e., it can neither harm nor help the economy's performance. But the economy's performance is affected by external shocks and misinformation. They differentiate between the rationality of the economic actors and the quality of information available to them. Thus they accept the possibility of bad performance of the economy due to external shocks and/or misinformation. The Supply Siders assume that rational behavior is coupled with perfect information. That is why they optimistically believe that a removal of government interference will improve the economy. The Rational Expectationists, on the contrary, paint a gloomy picture in which the government is totally helpless. Whether it expands its activism or removes its interference, it is absolutely ineffective either way. It can neither hurt nor help the economy. Thus a Rational Expectationist can tell us, "Resign yourself to the fact that the best possible performance may be a rather poor performance."¹³

It is evident that within the adherents of the neo-classical paradigm, these three sects apply different rules to study a given phenomenon and hence come up with divergent conclusions and solutions. (Their beliefs about policy activism are as divergent from each other as those of the three Abrahamic faiths about the same God in Whom all of them believe). Despite this diversity due to the *sectarian influences* on the neo-classical paradigm, if we recognize the ability of this paradigm to guide research, then by the same token we also recognize the ability of the Shari'ah paradigm to guide research in Islamic economics. It is now evident, in the light of the sectarian diversity within the neo-classical paradigm, that the attempts to discredit the ability of the Shari'ah paradigm to guide research, on the grounds of sectarian diversity, have absolutely no scientific basis. These kinds of criticisms, as a matter of fact, provide the scientific evidence that such critics understand neither the scientific structure of economics nor the neo-classical economics.

IV. A BRIEF NOTE ON THE KEYNESIAN PARADIGM:

Chart No. 2 shows only three paradigms and does not mention

¹³*Ibid.*, p. 144.

anything about the Keynesian paradigm. This is done to keep the technical discussion simple. Chart No. 3 shows the Keynesian paradigm of economics. The interesting fact about the Keynesian paradigm is that, although it is somewhat different from that of the neo-classical paradigm, its ingredients originate from the same philosophic foundations as that of the neo-classical paradigm. Although Keynes did not say much about the micro aspect of his macro theory, in principle he was taking most of the neo-classical micro principles for granted, except the price-auction general equilibrium model with price flexibility. His economic actors are the *economic man* type and their behavior is utility oriented, but they neither have perfect information (as in the Supply Sider's world) nor do they have rational expectations. They have money illusions and, in the short run, can work with fixed nominal wages and/or with a drop in real wages whereas prices are rigid downwards.¹⁴ This approach does not ensure the possibility of simultaneous full employment equilibrium in all markets. This lack of simultaneous general equilibrium causes unemployment, which paves the way for the government's policy activism to restore full employment equilibrium. We find that basically, the Keynesian model is also working in a market economy as against the controlled economy. But the Keynesian paradigm does not take it for granted that the system is perfect. Instead the Keynesian paradigm is based on the philosophic foundations of *guided laissezfaire* in which the government policy activism guides the system to achieve full employment equilibrium. Thus Keynes emerges as the *Savior* of capitalism. In his paradigm the government policy, psychologically speaking, has an FDIC effect on the minds of the people. But this government interference does not allow capitalism to remain pure as was the case under the neo-classical paradigm; instead it results in a relatively mixed capitalistic system. In its spirit the Keynesian paradigm, despite the fact that it advocates government policy activism, retains the market economy in principle. The result is that we have a relatively mixed capitalism. Hence we can conclude that the Keynesian paradigm blends the market-economy free enterprise structure with the guiding government policy activism. Therefore, we classify it with the market economy and not with the controlled economy. This also proves that within the same system we may have more than one paradigm. Thus in capitalism we have two prevalent paradigms; namely the neo-classical paradigm and the Keynesian paradigm.

V. THE SHARI'AH PARADIGM:

The history of science tells us that scientific revolutions take place

¹⁴Arthur M. Okun, *Prices & Quantities: A Macroeconomic Analysis*, The Brookings Institution, Washington, D.C. 1981, p. 9.

when paradigmatic transformations occur in a mature science. Although research can be pursued without a paradigm, "Acquisition of a paradigm and of the more esoteric type of research it permits is a sign of maturity in the development of any given scientific field."¹⁵

The history of developments in physical optics is the evidence of scientific revolutions caused by paradigmatic transformations. During the eighteenth century Newton's works provided the paradigm for this field which held that light was material corpuscles. Early nineteenth century paradigm, which was derived mainly from the works of Young and Fresnel, developed the wave motion theory of light. In the earlier part of this century the works of Plank, Einstein, and others led to the development of the paradigm that light is photons, i.e., quantum mechanical entities that exhibit some characteristics of waves and some of particles. "These transformations of physical optics are scientific revolutions, and the successive transition from one paradigm to another via revolution is the usual developmental pattern of mature science."¹⁶

Now let us look at economics to see its development pattern as a mature science. On the basis of the above pattern of advances in optical physics through scientific revolutions, we can say, on a priori basis, that economics must also follow the same pattern of paradigmatic transformations. Otherwise scientific revolutions, which bring advancement, will not occur in economics and it will stagnate.

VI. THE SCIENTIFIC REVOLUTIONS IN ECONOMICS:

In the mainstream economics of today, we find that it is dominated by the neo-classical paradigm. The history of paradigmatic transformations in economics shows that the neo-classical paradigm came about in the same revolutionary succession of paradigms as the quantum physics of today.

The First Scientific Revolution; The Physiocrats:

The seventeenth and eighteenth century economic thought was dominated by the Mercantilist paradigm which advocates that, the government should manage the economy to increase the national wealth and power which is symbolized by the acquisition of more gold and silver. Thus government regulations and high protective tariffs were used to discourage gold outflow and encourage gold inflow. Mercantilism was challenged by the Physiocratic paradigm which was influenced by Quesnay's book *Tableau Economique*. The Physiocrats attacked the mercantilists' notion of wealth and claimed that land, which is a gift of nature, is the only real wealth. They believed that agriculture is the only truly productive enterprise, as it delivers a positive net product

¹⁵T.S. Kuhn, *The Structure of Scientific Revolutions*, 2nd ed., 1970, p. 11.

¹⁶*Ibid.*, p. 12.

over and above its costs of production. Contrary to the mercantilists they advocated *laissezfaire*, thus demanding the elimination of tax burden on the farmers and the withdrawal of measures that gave a protected status to the manufacturers.

The influence of the physiocrats did not last for more than a quarter of a century. In 1776 they were eliminated, in France, as an influential force for all practical purposes. Adam Smith agreed with the *laissezfaire* part of the philosophy of the physiocrats. "He spent two years in France, from 1764 to 1766, where he interacted with many of the leading French intellectuals, including physiocrats Quesnay and Turgot."¹⁷

The Second Scientific Revolution; The Classical Paradigm:

Adam Smith's *Wealth of Nations* published in 1776 argued in favor of *non-interventionism* i.e., the free market economy. It developed the first consistent model of capitalism based on the argument of the pursuit of self interest by the individual in an exchange economy. Smith's paradigm, based on Say's law of markets (which guarantees full employment), was supported by Ricardo, James Mill, and John Mill; and came to be known as the classical economics.

The Third Scientific Revolution; The Neo-Classical Paradigm:

The Classical paradigm remained intact for nearly a century. In the 1870's utility revolution equipped with marginalist tools transformed the classical paradigm. The Neo-Classicals emphasize microeconomics in the context of the free market economy. Main architects of the neo-classical paradigm were: Menger, Walras, Jevons, and Marshall. By the early twentieth century the neo-classical paradigm was well established.

The Fourth Scientific Revolution; The Marxian Paradigm:

Adam Smith and his followers considered capitalism as the permanent state for the society. Marx, an observer of the widening gap between the rich and the poor, and a believer in dialectical materialism, disagreed with the assertion that capitalism was a permanent state for the society. He saw capitalism only as a transitional stage which would ultimately lead to a society in which private ownership of property would be nonexistent. Charles Dickens was only a critic of capitalism, while Marx presented an alternative to capitalism. Marx believed that capitalism worships at the shrine of *self-interest* without any concern for human *self-respect*. Like the classical economists he also believed in labor theory of value, but he emphasized it more than the others. He uses his theory of surplus value as a double edged knife against capitalism. Using

¹⁷E.K. Hunt, *History of Economic Thought: A Critical Perspective*, CA: Wadsworth Publishing Co., 1979, p. 30.

this theory he demonstrates that capitalism is inherently unstable as it will be subject to business cycles. This also allows him to line up the reserved army of the unemployed who will overthrow capitalism and create a socialist state in which private property will not exist and a classless society will be established.

The Fifth Scientific Revolution; The Keynesian Paradigm:

Although Marx had predicted that capitalism has the seeds of its own destruction as it will be visited by the business cycles, by the first quarter of the twentieth century the neo-classical paradigm was well established in the west. This paradigm guaranteed full employment equilibrium for the economy.

But the great depression of the 1930s overthrew the neo-classical paradigm and brought the Keynesian paradigm to dominance. Keynesian paradigm attempts to retain the spirit of capitalism with some marginal changes in the structure of the system so that it can overcome the business cycles. In Keynesian economics private property and selfish individualism, the pillars of capitalism, are retained. Keynesian paradigm does not believe in price-auction model, thus making wages and prices downward rigid, which means all markets do not clear simultaneously to assure full employment equilibrium. Hence unemployment is a real possibility. The Keynesian paradigm assigns the stabilizer's role to the government through policy activism. Thus Keynesian paradigm, in a way, provides insurance against the possible destruction of capitalism as forecast by Marx.

The Sixth Scientific Revolution; The Neo-Classical Counter Revolution:

In the 1950s a group of American economists led the neo-classical counter revolution against the Keynesian paradigm. They attacked the Keynesian orthodoxy on two fronts. The Keynesian disequilibrium flavor growth theory of Harrod-Domar was attacked by Solow and Samuelson who abandoned the fixed input ratio production function and showed, in the neo-classical fashion, that the economy could maintain the steady growth path. On the policy front the Monetarists, led by Milton Friedman, revived the quantity theory which enabled them to challenge the rationale of government's policy activism. These efforts were successful in reviving the neo-classical paradigm which is currently considered to be the mainstream economics.

The Seventh Scientific Revolution; The Shari'ah Paradigm of Islamic Economics:

This revolution is currently underway. The scientific justification to develop this paradigm has been discussed in Section II of this paper. The fundamental argument is that, given the philosophic foundations of the Islamic society (as discussed in Section II—c) the representative

economic agent in the Islamic economic system is the Muslim man and not the economic man. The Muslim man's purpose in life is to achieve *falah* by following the *Shari'ah* in all walks of his life. The economic man, on the other hand, has a limited perspective of his life which confines him only to the maximization of his utility. Since they both have different outlooks towards life, their criteria of success also differ from each other. One considers himself successful only when he achieves *falah*, therefore he follows the *Shari'ah*; while the other's concept of success is limited to utility maximization only, therefore he follows the *pig principle*, which in simple words means that if you like something, more is better.¹⁸ In capitalism the adherence to the pig principle is a necessary condition for consistency. If one does not behave this way then his choices and preferences are not consistent and, therefore, he is not considered to be an economic man which is tantamount to saying that he is not rational. A Muslim man, on the other hand, is the follower of the *Shari'ah*. If *Shari'ah* requires him to be moderate, his Islamic rationality makes him follow moderation and not the pig principle. This is evident from his consumption behavior.¹⁹ This shows that, in principle, the rationality criterion in the two systems is very different from each other. It is the rational behavior of the representative economic agents which, as in other systems, is the basis of the microfoundations of the Islamic economic system. And it is the microfoundations that shape the economic system. Therefore, we argue that it is this difference in the bases of the microfoundations of the three systems, that is our scientific basis to develop the *Shari'ah* paradigm of Islamic economics.

VII. THE ROLE OF THE ISLAMIC ECONOMISTS IN THE SEVENTH SCIENTIFIC REVOLUTION OF ECONOMICS:

The above discussion enables us to clearly understand two points. First, the basis of the microfoundations of Islamic economic system is the behavior of the Muslim man and not the behavior of the economic man. Thus all the behavioral theories and hypotheses of Islamic economics have to be formulated in line with the behavior of the Muslim man. Second, it defines our directions in terms of research to be conducted in the field of Islamic economics. These directions mean that the development of Islamic economics is dependent upon the construction of the *Shari'ah* paradigm. If the researchers, trying to develop Islamic economics, fail in constructing the *Shari'ah* paradigm of economics, then there is the danger that the argument for the Islamic economics may meet the same fate as that of the *New Radical Economics*

¹⁸S.S. Alexander, "Human Value and Economists' Values," in *Human Values and Economic Policy*, S. Hood, ed. NY: NY Univ. Press, 1967, p. 107.

¹⁹M. Arif, "Towards Establishing the Microfoundations of Islamic Economics," AMSS 12th Annual Conference Paper, 1983.

in the United States: "The new radical economics had its formal, academic origin at Harvard University in the autumn of 1967."²⁰ The movement was led by some graduate students and faculty who saw the conventional neo-classical paradigm as the tool of preaching, establishing, and stabilizing capitalism. They felt that neo-classical economics promotes status quo and is conducive for an environment which creates classes, racism, and argument in support of imperialism. Hence there was a need for an alternative economics. These radicals owed their intellectual debt to Marx and Veblin. In the 1969 annual convention of the American Economic Association (AEA), in New York, these radicals were able to stage a "counter convention".²¹ Observing these energies and the zeal of these radicals, Bronfenbrenner in his 1970 survey predicted that if this intellectual movement continues for a generation, it may constitute a scientific revolution.²² His optimism was based on the presumption that these radicals would be able to develop an alternative paradigm. Today, almost one and a half decade after these optimistic remarks of Bronfenbrenner, we find that the radicals have not been able to demonstrate any significant progress to that end. Thus one may agree with the common notion that, although the new radicals may survive as the critics of capitalism their failure to construct an alternative paradigm guarantees the survival and dominance of the neo-classical paradigm. Canterbury remarks that so far the radical critics owe their survival to the fact that the contemporary conditions still bear resemblance to their criticism based on Marxian and Veblenian logic.²³ If in the future, the conditions don't remain relevant to those types of criticisms then the radicalism will die out. Or if the radicals fail in constructing an alternative paradigm then again those will be justified who, in the 1970 AEA convention had, "dismissed them as a fringe group of rebels with a cause but no theory and maintained that economics would little note what they did there, much less what they said."²⁴

The purpose of this brief review of the American new radical economics is to reinforce our point that those who are engaged in research in Islamic economics must be aware of the challenge they have accepted. They must determine their direction in the most effective way. Given the structure of the scientific revolutions, it is their prime duty to construct the Shari'ah paradigm of Islamic economics. Anything less than that would give them a status equal to those radicals who were dismissed by the profession as a fringe group with a cause but no theory.

²⁰E. Ray Canterbury, *The Making of Economics*, 2nd ed. CA: Wadsworth Publishing Co. 1980, p. 235.

²¹Martin Bronfenbrenner, "Radical Economics in America, 170," *JEL* (Sept. 1970), p. 747.

²²*Ibid.*, p. 748.

²³E. R. Canterbury, *The Making of Economics*, 2nd ed., CA: Wadsworth Publishing Co. 1980, p. 245.

²⁴*Ibid.*, p. 234.

CHART NO. 1

THE STRUCTURE OF A NORMAL SCIENCE:
THE CASE OF ECONOMICS

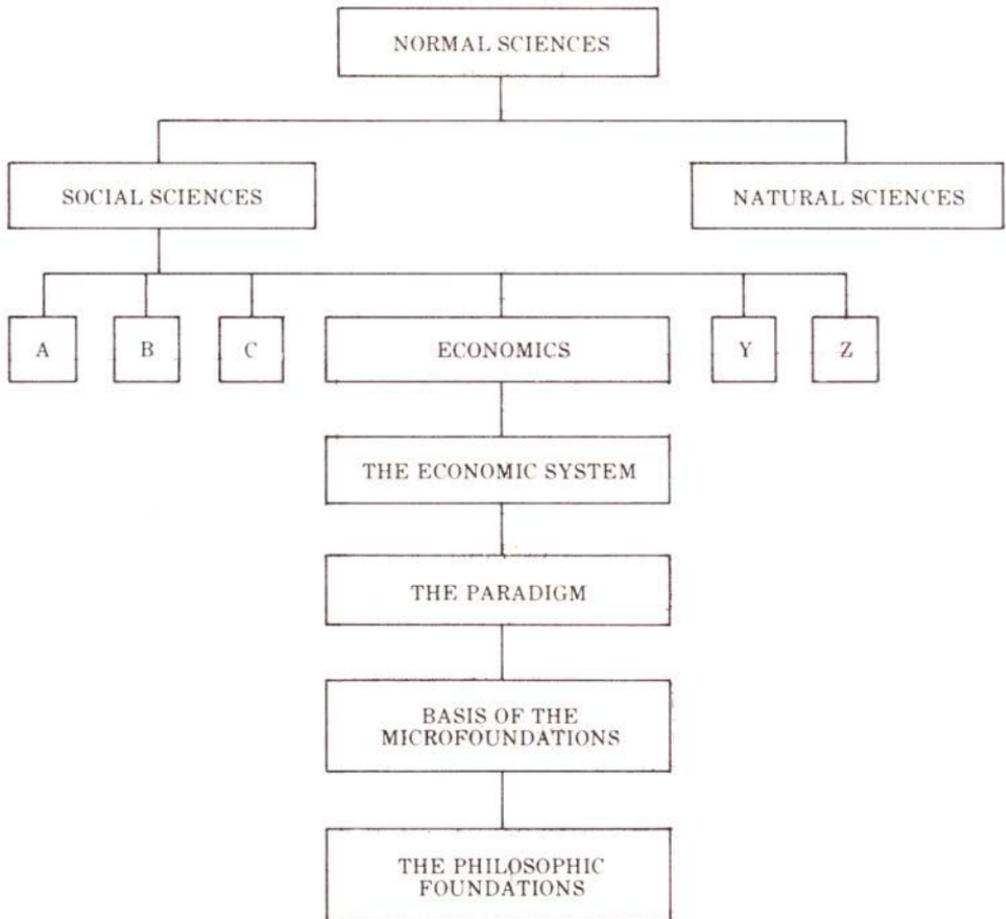


CHART NO. 2

THE BASIS OF THE MICROFOUNDATIONS AND ITS IMPLICATIONS FOR THE ECONOMIC SYSTEM

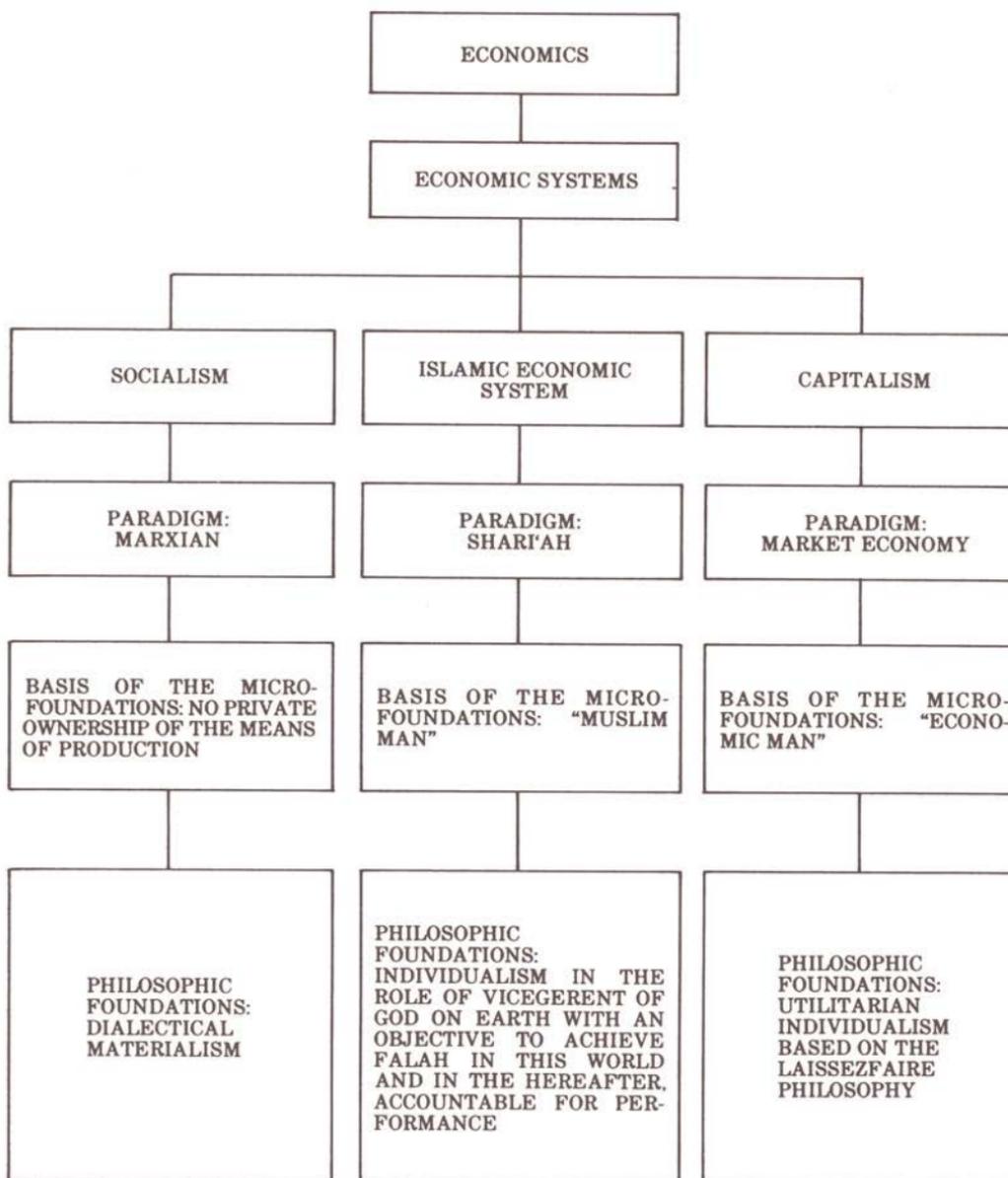


CHART NO. 1

THE STRUCTURE OF A NORMAL SCIENCE:
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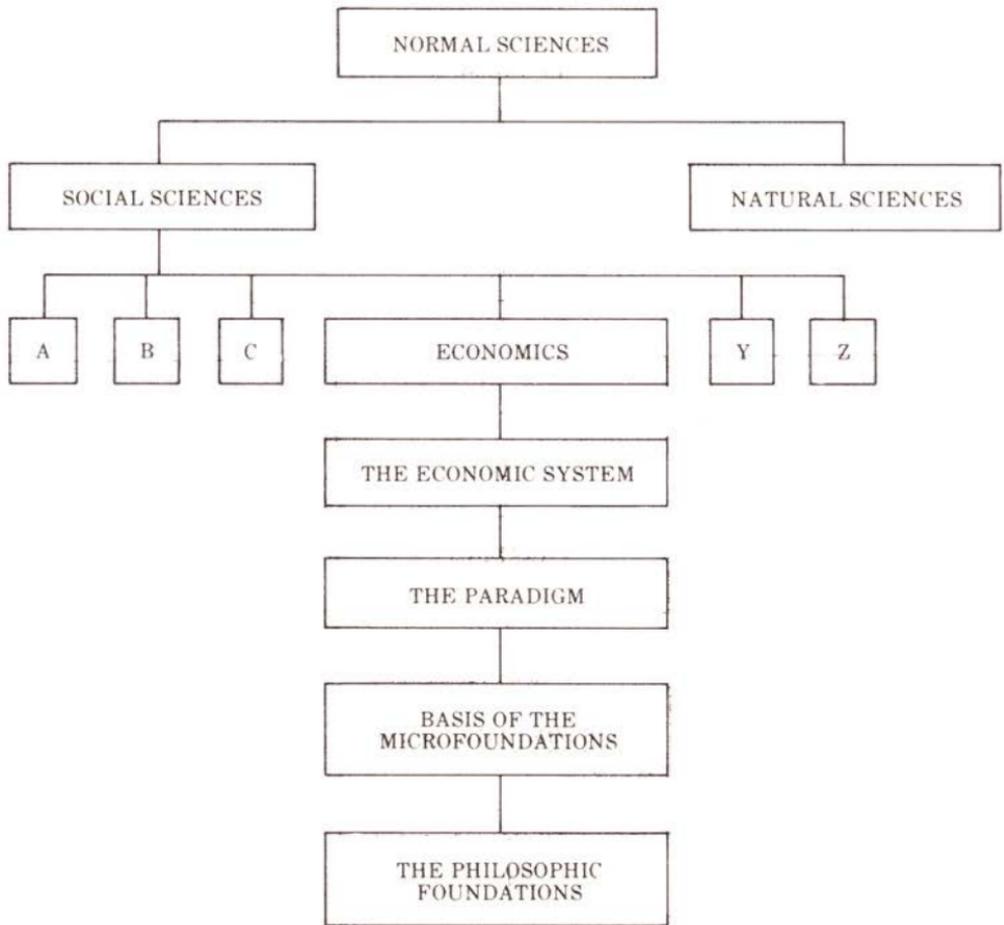


CHART NO. 2

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