How to Teach Microeconomics in Islamic Perspective at Intermediate Undergraduate Level in an Undergraduate Program

Fahim Khan

General Discription of the Course

Course Level

Microeconomics has not yet reached a level where the Islamic perspective can be incorporated into microeconomic theory at the graduate or even at the undergraduate level. At this stage, efforts are required to organize an intermediate undergraduate microeconomics course with an Islamic perspective. The course will be taught in the third year of a four-year undergraduate economics program, following courses taught at the principles level in the first or second year. This paper provides guidelines for such a course.

Prerequisites

The course follows the principles level courses—a course on the principles of 'conventional' economics, an introductory course on Islamic economic doctrines, and a course explaining the fundamentals of fiqh al mu'āmalāt (the jurisprudence of economic and financial matters). A list of main topics covered in these prerequisite courses can be found in Appendix A. It is assumed that the student has been exposed to elementary mathematical tools (algebra, graphs, geometry, and differential calculus, etc.).

Duration

The course is two semesters. Normally, a course of this level is taught in one semester; but because students are required to review the secular concepts from the Islamic point of view, they need to learn all of the standard material plus the relevant Islamic literature. The most time consuming aspect of this course is the elaboration and critical appraisal of the philosophical underpinnings of conventional microeconomic theory.

Coverage

The course's basic framework will follow the standard textbooks used at this level at any well-known North American or West European university. The contents of a typical textbook are detailed in Appendix D.[1] The course objective will be to cover all the standard material covered in the secular context and then return to the material viewing it from the point of view of Islam and, when possible, offering Islamic alternatives. An outline of the course along with suggested guidelines for teachers are given below.

General Approach and Methodology

In most Western universities, a course at this level is given a mathematical rather than philosophical treatment. However, this course requires full mathematical treatment along with a detailed discussion, as far as possible, of the philosophical underpinnings. It would be futile to examine the secular concepts from an Islamic point of view without first providing the secular philosophic basis. Usually at the this course level no term paper is required, but for the purpose of this course a paper is highly desirable. Students are required to write a term paper on a topic that reviews a concept of modern microeconomics from an Islamic point of view or integrates a 'conventional' concept with an Islamic concept.

In Muslim countries junior faculty members, who have little exposure to the research in Islamic Economics, will most likely be teaching this course because it is an undergraduate course and there is shortage of adequately qualified faculty. Though the junior faculty members may be perfectly qualified to teach the secular content of the course, because of the lack of teaching material in the field, they will always feel handicapped in providing their students an Islamic insight into the concepts discussed in the course. It will, therefore, be desirable to arrange lectures to be delivered by renowned scholars of Islamic economics in order to present a comparative analysis of philosophical underpinnings of various concepts of modern microeconomics.

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[1] These contents have been taken from A. Koutsoyiannes, *Modern Microeconomics*, 2nd edition, Macmillian Publishers Ltd., n.d.

Outlines and Guidelines

Broadly speaking the course should cover the following areas:

1. Introduction to Microeconomics
2. Theory of Demand
3. Theory of Production
4. Theory of Costs
5. Theory of Profit Maximizing Firm (i.e., firm behaving with marginal cost pricing)
6. Theory of Firm under Alternate Pricing Systems (i.e., pricing systems other than marginal cost pricing)
7. Production Factors, Pricing Factors, and Markets Factors
8. Theory of Distribution
9. General Equilibrium and Welfare Theory

Guidelines for content discussions in these areas are given below. (A detailed outline of the above headings are given in Appendix A.)

First Semester

Introduction to Microeconomics

Microeconomics requires an introduction to the concepts of the economic problem, economic agents, and economic social institutions. A brief description of the contemporary methodology of social sciences in general and economics in particular is also required. Usually a discussion on methodology is not covered in this course, but since Islamic economics is yet to be developed as a scientific discipline, it is essential that students broadly know the methodology of economics at this stage too. After a discussion of these topics in the secular context, the teacher then should turn to the Islamic perspective on these topics. An economic problem should be discussed in detail in the light of an Islamic system of life. At this point, a renowned Islamic economist, or, if one is not available, a renowned 'ālim (religious scholar) should be invited to give his idea of 'the economic problem of man.' The teacher then may synthesize this lecture into

the modern economic jargon. Such a discussion should make a student conceptualize 'maximizing behavior' within the Islamic context. Optimization, with respect to the objective of economic activity and the objective of the economic activities of Islamic agents, should be elaborated in detail.

The significance of 'wants' which emerge from desires is another important point to be discussed in the context of formulating the economic problem of man from the Islamic perspective. Along with wants the concept of 'needs' may be discussed. At this point, it will be useful to refer to the literature relating to the objectives of the shari'ah. In addition, the following topics need to be highlighted: the limits of laissez-laire in the context of the Islamic economy, the role of the State to intervene in the economic affairs of economic agents of the society, the State's own economic role, the State's role in modifying the individual's economic behavior so that it falls in line with the objectives of the shari'ah, and the State's role in building up itself as an institution so that it supplements or complements the market institution in achieving the objectives of the shari'ah. Along with this introduction to the economic problem from the Islamic perspective, the methodology of Islamic economics should be discussed. Here we may introduce the role of the third sector in the Islamic economy, the private sector, which looks after the public needs of the society.

The discussion of microeconomic methodology may start by describing the axioms that relate human behavior to the development of economic theory and then goes on to determining whether or not Islamic economics requires different axioms. Again, a reference to the objectives of the shari'ah may be required in order to derive the basic axioms of Islamic economic behavior. In this respect, some reading material mentioned in Appendix E can be consulted. So far, two or three different approaches are available. The teacher should discuss all of them as a methodology for Islamic economics.

A discussion of the implications of a difference in the set of axioms for human behavior should also be discussed. For example, it can be argued that whereas axioms of secular behavior emphasize only efficiency (more is preferred to less), the axioms of Islamic

behavior imply not only efficiency but some other norms also (e.g., equity, desirability, etc.). Similarly, as the secular axioms of laissez-faire will promote the market as an economic institution to achieve efficiency, Islamic axioms will promote their own institutions to ensure their norms of equity, desirability, etc. These institutions may be public sector institutions or third sector institutions.

In a secular context, this introduction may not take more than a lecture but in the Islamic context, at least three lectures should be devoted to this section so that students get the necessary background to visualize and compare the Islamic approach to the concepts of micro-behavior that they will be studying in this course. (The readings for this section are shown in Appendix B.)

Concept of Ownership

After the introduction, conventional microeconomic theory begins with the consumption theory. However, when beginning microeconomics from an Islamic perspective, the starting point will be the concept of ownership and individual property rights. Secular economics is justified in ignoring the discussion of individual property rights on the assumption that individuals are operating in a laissez-faire framework. This assumption is not true when discussing Islamic microeconomics.

The manner in which property rights are defined has an extensive and intensive effect not only on the economic activities of a society but also on the institutions that will develop in the society. In fact, the system of property rights determines the parameters of microeconomic behavior.

A precise introduction to the Islamic system of property rights will help students understand the institutional structure regulated in an Islamic society. He will be able to review the following:

- How relevant the assumption of competitive markets are to an Islamic society.
- How far the competitive markets will be able to meet the economic needs of the society.

- What institutions of Islamic society that competitive markets fail to meet.

A proper definition of property rights also determines the divergence between private costs/benefits and social costs/benefits which will provide a basis for understanding the Islamic approach to welfare theory in microeconomics.

The property rights of individuals and state/society need to be defined separately. Individual property rights, also called private property rights, must be explained in relation to a market system. Simple examples from contemporary societies will serve to explain how inadequately defined private property rights lead to market failures. They do so because they create externalities which lead to a situation in which either the private cost of an action is not equal to the social cost of that action or the private benefit of an action is not equal to the social benefit of that action. Distinctive features of the Islamic system of private property rights are required to be highlighted not only to mention that such externalities are minimized but also to mention that these features are extremely important for the formulation of various aspects of microeconomic theory. (References have been provided in the reading list to explain the extent to which the principles of property rights have affected the formulation of microeconomic theory.) Criticism of traditional theory of production and exchange and the new analytical approaches form an important body of contemporary economic literature. A large part of this literature is growing upon the notion of property right structure. Our students, who will have to criticize traditional theory and discover alternate analytical approaches, will benefit from a discussion of the Islamic system of property rights at the beginning of a microeconomic theory course.

While teaching the topics of consumption, production, and firm behavior, the teacher is required, off and on, to explain that the nature of Islamic property rights affects the allocation and use of resources in specific and predictable ways. It has been argued in economic literature that a change in the general system of property relations must affect the way people behave and hence, through this effected behav-

ior, property rights assignments affect the allocation of resources, composition of output, distribution of income, etc.

No in-depth analysis of property rights and their relationship to microeconomic theory is required at this stage. The objective is simply to make the students understand that Islam gives a different system of property rights with its distinctive features having implications on the microeconomic behavior of human beings.

Theory of Demand

In this section, the first topic discusses the theory of consumer behavior. After explaining the secular basis of consumer behavior (covering the concepts of utility, marginal utility, and indifference curve analysis), the question becomes is this a valid basis (or the only basis) from which to describe consumer behavior? One approach may be to derive the basis of Islamic consumer behavior from the objectives of the shari'ah. The objectives of the shari'ah should determine the objectives of Islamic consumer behavior. *Maṣlaḥah* (considerations of public interest) in the consumption of a good, for example, may be an alternative concept corresponding to the secular concept of utility. According to Shatibi, *maṣlaḥah* can be at three levels: *ḍarriyah* (necessity), *ḥajjiyah* (complementary), and *tahsinuyah* (amelioratory). There will be a lexicographic ordering in the goods at different levels of *maṣlaḥah*. Indifference curve analysis, therefore, will not be valid. (Reference has been provided in the reading list to indicate how lexicographic ordering may be analyzed in this respect.) Only those goods which have the same level of *maṣlaḥah* can be amenable to indifference curve analysis. Such an approach leads to a distinction between wants (based on the utility concept) and needs (based on the *maṣlaḥah* concept). The question then becomes in what respect is the consumer behavior analysis based on the need concept substantially different from the analysis based on the utility or want concept? It is in this context that discussion should arise about economic institutions (not present in the secular framework) that moti-

vate or force the consumer to fulfill his needs (according to *maṣlaḥah*) rather than seek maximization of worldly utility (desires).

At this stage, it is necessary to distinguish between the two types of spending performed by the Islamic consumer.

- Type I is to meet his and his family's worldly needs (the fulfillment of which not only yields utility but also a reward in the Hereafter).
- Type II is for the sake of a reward in the Hereafter alone with no explicit motive of meeting worldly needs.

This discussion should start from the explanation of *āyāt* (verses) 2:260 to 2:280 in the Qur'an. It will be useful to invite a scholar in fiqh to explain these verses in detail with reference to the consumption behavior of the Prophet (Peace be upon him) and his Companions. Following the scholar's discourse, the teacher should reformulate the same concepts in economic jargon. Comparing the two types of spending we may say that, whereas type I spending may be yielding what is recognized as utility, type II spending yields something different from utility. Let us call it extra-utility (*thawāb* or reward in the Hereafter). Whereas utility is something that refers to the man-material relationship, extra-utility is something that refers to the man-Allah relationship. An optimum allocation between the baskets, therefore, takes place on the basis of several parameters (including the degree to which an individual is committed to behave as a true Islamic person). In fact, type I spending involves utility as well as extra-utility because to spend on one's own genuine needs (i.e., needs having *maṣlaḥah*) also brings a reward in the Hereafter; whereas type II spending involves only extra-utility. The Qur'an in āyah 2:177 "and giveth away his wealth out of love for Him" clearly indicates that type II spending involves only extra-utility. It may be discussed what relationship utility and extra-utility may have in type I spending. For example, it may be argued that marginal extra-utility and marginal-utility are positively related. When the hungry person eats his first portion of food, he gets highest utility and also gets highest extra-utility because he knows that saving his life is a religious obligation. Eating the next portion of food gives him lower utility as

well as lower extra-utility and so on. Since it is difficult to talk about a marginal reward in the Hereafter, particularly in reference to type II spending, one may therefore like to talk in terms of total utility and extra-utility. One may argue that the two are negatively related in type I spending. The higher one spends on one's own needs, though the total utility may increase, the extra-utility may decline. On the other hand, the extra-utility involved in type II spending is a monotonically increasing function of spending.

By maximizing extra-utility while trying to fulfill his needs, the consumer can arrive at an optimum allocation of resources between the two types of spending. There are two types of choices involved: the choices between type I spending and type II spending and the choices within each type of spending. We have to make an attempt to describe rules for each of them. It is not necessary that we should try to explain these rules with the help of indifference curve analysis. We may take the example of a typical Islamic consumer and, making various assumptions about his Islamic orientation, arrive at certain rules governing his choices either in terms of utility or *maṣlaḥah* or *thawāb*. Also, it is essential to explain the normative spending behavior of an Islamic consumer. Classroom discussion would serve to explain the term *isrāf* (intemporance) in the economic jargon of utility or *maṣlaḥah* and its role in arriving at a decision rule for the two types of choices. Also, it may be useful to attempt an explanation of *al 'afw* (one's resources that are beyond one's needs). It is here that students may be required to write an assignment on the decision rules of an Islamic consumer for the choices it faces. Hypothetical numerical examples may be given to ask the students to determine how a consumer will allocate his income or how this allocation will be different from the allocation if he behaves other than as an Islamic consumer.

Within the topic Theory of Demand, the standard textbooks cover the following as an application of the theory of consumer behavior: Work-Leisure choice and Intertemporal Choice. These two aspects of choice need elaboration from the Islamic perspective using the same method of analysis used above for consumer behavior.

Work-Leisure Choice

It may be pointed out that leisure is not the only alternative to work. There is another alternative use of time, it is the use of time for the Hereafter. It may, therefore, not be merely a work-leisure choice in the Islamic perspective. We may call it a time-allocation problem (corresponding to the income-allocation problem.[2] Someone may spend his time in three ways: first, earning income to have a command over other resources to meet his worldly needs; second, leisurely resting or recreating (which too is a worldly need); third, doing something that fulfills no worldly need but which will benefit him in the Hereafter.

How one allocates his time between the three types of uses is part of the discussion on consumer behavior. Parallel with the discussion of income-allocation we may put time-allocaton into two types.

- Type I is spending time to meet worldly needs. This includes time allocated to work earning an income as well as resting the mind and body (again, meeting genuinely worldly needs implies a reward in the Hereafter too).
- Type II is spending time earning a reward for the Hereafter only (with no explicit objective to meet any worldly need). This includes time allocated to various 'ibādah (acts of worship), the propagation of Islam, etc.

Similar to the income-allocation problem, the consumer is now confronted with two choices of expenditure: How much time to allocate to type I and type II spending. After it has been decided how much time to allocate to type I spending, the choice is to decide how much time to allocate to work and how much to leisure within this type I spending. The choice may be discussed with the student first in the utility-based approach using the indifference curve analysis and pointing out its limitation in analyzing such behavior. Then these choices may be discussed in the need-based framework too. Though there are no tools available for analyzing the need-based behavior

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[2] Just as the consumer must decide on how much income to spend on which commodity, so the consumer must face the problem of time allocation, i.e., how much time to spend on what.

such as the indifference curves, still it is hoped that a continuous effort by teachers to explain the need-based approach will ultimately result in the development of our own tools of analysis.

Intertemporal Choices

Intertemporal choices require an in-depth analysis from the Islamic point of view. If the students are not clear about the Islamic position on this aspect of choice, they may later become confused on the issues relating to factor rewards, and income distribution between factors of production.

First, a full exposition should be given to intertemporal choice in the secular framework by explaining, in detail, the concept of time preference and how an equilibrium discount rate is arrived at with the help of indifference curve analysis between present consumption and future consumption. That the philosophical underpinning of such an analysis is important should also be highlighted and reviewed. After an excursion on the secular conceptual plane, a turn should be made towards the Islamic plane. The basic question to discuss is: Does Islam recognize time preference as a legitimate aspect of the economic behavior of human beings or will Muslims have a positive time preference if they behave according to Islamic norms of behavior?

Answering the question may begin by raising the above questions, first, in the secular context. Do people really have a positive time preference? If so, what are the factors that determine the rate of time preference? Do these factors remain valid in the Islamic context? Literature is now available to discuss this question in detail. (References have been provided in Appendix B.) One conclusion may seem to be quite obvious, that is, the rate of time preference in Islamic behavior may be much higher than in secular behavior. This may be because of several factors, e.g., the belief that the Almighty, and not the human being, can take the responsibility of future consumption and the social insurance system will take care of the emergencies. But this should not lead to the conclusion (as some writers have done) that savings in an Islamic economy will be lower or only

negligible due to the higher rate of time preference. The question of savings should be discussed from two angles. First, the motives and factors that generate savings are required to be discussed. Several motives and factors behind savings will turn out to be independent of the rate of time preference. The high rate of time preference may come in the way of savings only when investment and, hence, return on savings is the only motive for savings. Second, savings in an Islamic framework will be required to be invested, otherwise, it will be depleted by zakah. Thus, the savings in an Islamic economy are compelled to be in a productive form and, therefore, the consumer may even raise higher productive savings.[3] All such discussion should be confined in the context of intertemporal choice to present and future consumption.

Next, in the context of intertemporal choice within the Islamic framework the question is whether the time has legitimate value in intertemporal transactions and whether this value is allowed to be cashed in the market. In other words, if I believe that I discount future consumption at the rate of 10 percent per annum, does this mean that I am entitled to charge a person who borrows my present resources to pay me a surcharge at the rate of 10 percent to compensate my time preference. There is some controversy about this, therefore, a review of the literature is essential to provide the students with food for thought whenever the issues of discounting, interest rate, deferred sales/payments are discussed. (References to the relevant literature have been provided in Appendix B.)

Now is an appropriate time to discuss a peculiar aspect of con-sumer behavior in the Islamic framework. In the secular framework, income-allocation in the intertemporal framework makes the con-sumer a saver who earns interest on savings to maximize his present and future consumption. Similarly, the time allocation between income and leisure makes him a laborer who decides to spend part of his time as labor for wages. But the analysis of consumer behavior in

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[3] It may be pointed out that a lot of savings in several developing countries are in unproductive assets like gold, jewelry, and other durable consumer items. Such savings are independent of time preference (as time preference in these countries should be high) and are independent of rate of return on savings.

the Islamic framework may lead us to explain how an entrepreneur or a firm is generated as a result of a consumer's work-leisure choice or as a result of his intertemporal choice.

Analysis of intertemporal income-allocation in the Islamic perspective reveals that if a person chooses to save, then he at the same time decides to be an investor too. In the presence of zakah and the absence of interest, he cannot decide simply to save unless he knows how to pay zakah. In other words, he will simultaneously decide in what form he will keep his savings so that he can pay zakah out of the income of such savings. Similarly, time-allocation analysis will simply reveal that a person decides how much time to spend working. But then there is another choice involved, and that is whether to work for a wage or initiate his own work in order to earn an income (in which case he will decide to bear entrepreneurial risk too).

In other words, analysis of how a consumer includes a choice between various risk bearing alternatives is available to him. This aspect may be made an important and integral part of the consumer theory in the Islamic perspective. It is this choice that will help us in understanding the supply of entrepreneurial factors of production[4] (as opposed to secular consumer theory which helps us understand only the supply of labor and savings—savings being considered as supply of capital on the assumption that all savings are invested).

Next comes market demand analysis. The standard techniques and tools of market analysis may be taught to the students from any conventional textbook. The derivation of market demand resulting from the individual consumer's decisions and a discussion of the factors affecting market demand should be done both under utility-based analysis as well as need-based analysis. The differences in market demand under the two approaches should be discussed. Under the need-based (*maṣlāḥah*-based) analysis, necessities are required to be fulfilled first, then complementarities, and then amelioratories. In a society where institutions exist to motivate or compel its individuals to follow such a hierarchy in needs in the initial stages of develop-

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[4] The concept of entrepreneurial factors of production will be further introduced in detail under the topic of factors of production.

ment, market demand should reflect mostly the fulfillment of necessities. Complementarities and amelioratories may get added at an accelerated rate as society develops. For example, consider market demand of a good say, wheat. The slope of market demand of wheat will depend on, among other factors, the level of development in the country (i.e., per capita income) and the extent of income distributions. If the per capita income is low and income-distribution is more or less egalitarian, the market demand will be almost flat since most of the people will simply be using wheat to meet their necessities. (This may not be so if the economy is not following a hierarchy among necessities, complementaries and ameliorates in its consumption). As the country develops, the slope of the market demand will become steeper and steeper because into wheat's demand will enter the complementary and amelioratory. This result may hold irrespective of the distribution of income in the economy. On the other hand, in a secular economy, the more unequal the distribution of income, the steeper the demand for wheat because some people will be using wheat as complementary and some as amelioratory and the demand of such people will obviously be more price elastic. There is no institutional compulsion in the society not to go for amelioratory consumption of wheat when other people are deprived of even its essential consumption.

It may be instructive to analyze the recent developments in the theory of market demand such as linear expenditure which can have relevance for an anlysis in the Islamic perspective. Linear expenditure systems refer to models which deal with groups of commodities rather than individual commodities like food, clothing, consumer durables, services, etc.

It is assumed that the consumer buys some minimum quantity from each group irrespective of prices. In the Islamic framework, we can say that the consumer, first, will have to meet essential needs (for the basic protection of life, property, religion, reason, and posterity), irrespective of prices. Then LES (linear expenditure systems) assures that the income left after the expenditure on these essentials is allocated among various groups on the basis of prices. Here we may

introduce that the income left after meeting the essentials will be first allocated to complementaries because the amelioratories cannot be purchased before fulfilling complementary needs. A constant price elasticity say b may be assumed for these complementaries (as LES assumes for all consumption beyond the minimum requirement). Then we may assume that the income left after spending on essentials and complementaries will be allocated to amelioratories. (This will be a step forward beyond what is discussed in LES). Again a constant price elasticity say $b*$ may be assumed for these amelioratories with the restriction that $b* > b$. This is because, by definition, price elasticities of amelioratories are required to be higher than the price elasticities of complementarities. Several arguments can be developed to support such an hypothesis. (A similar division can be done for type II spending where some spending is absolutely essential—such as zakah/*'ushr* [one-tenth] and *al nafaqāt al wājibah* [required living expenditures]—and some spending may be complementary, and the remaining may be amelioratory.) LES, in fact, is potentially very helpful for econometric estimation of market demand functions in a contemporary Muslim society, which if implemented can help them to strengthen an Islamic theory of consumer behavior. Such an analysis may even help define *isrāf* and understanding the factors behind it. This subject, in fact, has the potential to become the subject of a Ph.D. thesis in Islamic economics.

The theory of consumer behavior is at the core of microeconomics. The introduction and the discussion of the theory of demand should comprise more than two-thirds of the first semester. The remaining one-third should be devoted to the theory of production, the theory of cost, and the theory of profit maximizing firm.

Theory of Production

The conventional textbook treatment of the theory of production simply requires an explanation of technical relationships and concepts such as: law of returns to scale, technological progress, marginal conditions for equilibrium level of output, derivation of cost function

from production function, production possibility curves, etc. These concepts have to be taught in the same detail as any modern text provides on this topic. But before entering into these technical concepts and relationships, the students must be led to ask, Why produce? This is a question usually not discussed in modern textbooks while discussing the theory of production. The modern textbook usually addresses itself to the questions, What to produce? and How much to produce? But the question Why produce? is not raised at all. In the secular framework, the reason is obvious: since consumers have to consume to derive utility, consumption can be met only through production. Maximization of utility requires maximum production. The question Why produce? therefore, does not require discussion. The question Why produce? only becomes relevant when discussing the theory of production in the Islamic perspective because then the discussion requires us to distinguish the secular motives for production from the Islamic ones.

If we agree to divide consumption into two distinct types of spending, one to meet worldly needs and another to meet the needs of the Hereafter only, then production has to be made for both types of spending. An explanation of motives behind production will help to understand various goods of a firm, which will be discussed under the heading Theory of Firm.

While discussing a production function in the secular context, it must be clarified that $Q = F(K, L)$ simply refers to the fact that production depends on certain factors. In addition, it must be clarified that the Islamic framework provides a different approach towards factors of production than the secular framework. At this stage it may simply be mentioned that this production function takes into account only those factors of production which have a definite schedule of marginal productivity and hence are entitled to a reward equal to their marginal productivity. This production function assumes away risk and uncertainty. This assumption may go well with the secular analytical framework, but for an analysis in the Islamic perspective, this assumption may hide some important aspects of economic analysis. It may be mentioned with reference to a later discussion on factors of

production that the factors of production may opt for sharing the outcomes of an activity rather than claiming a fixed reward on the basis of marginal productivity. The above production function cannot adequately take into account this fact, because in the Islamic framework, the factors of production not only may contribute some definite service to the production process but may also contribute some indefinite service, such as bearing the risk of loss.

It is neither possible nor necessary at this course level to provide an alternative form of production function. The objective should simply be to put into the minds of the students that $Q = F(K,L)$ is not a mathematical formula like $(a+b)2 = a2 + 2ab + b2$. The above type of production function emerges from a certain set of assumptions which may or may not be true, depending on the nature of the productive organization or the nature of the firm (to be discussed in the next charter) and on the framework available for these organizations to operate in.

Similarly, while discussing the derivation of cost function from production function, the students should be reminded that this cost function is relevant only in the context of fixed-reward-receiving-factors of production. The cost function will be derived differently if we include profit-and-loss-sharing factors of production in the production function.

Theory of Costs

Theory of Costs is more or less a technical topic, in the sense that it simply explains the logical relationship between the cost of production and the level of output. However, after discussing in detail the conventional analysis of cost-output relationships, once again the issue of uncertain-reward-bearing factors of production should be brought under discussion. The economics of profit-and-loss-sharing-based employment of factors of production should be discussed as opposed to the economics of fixed-reward-based employment of factors of production. In this context, the economic rational of profit-and-loss sharing, particularly with respect to financial investment,

should be elaborated, highlighting the significance of keeping the sharing of losses strictly in proportion to the invested capital. In other words, we should discuss questions such as Why in *muḍārabah,* and *mushārakah* contracts, profits are allowed to be shared in any proportion but sharing of losses have no other option but to be in the ration of capital? and How would this arrangement affect the cost of production vis-à-vis the conventional arrangements?

While discussing the topic of costs, particularly nonpecuniary costs, the attention should be drawn to the fact that a Muslim may consider several things a cost which a non-Muslim may not. Similarly, there may be several elements which require treatment as cost in the conventional framework, but in the Islamic framework may not be considered as cost. For example, payment of a higher wage or some noncash benefits to low income labor out of benevolence and for the cause of Allah, cannot be treated as a cost because this element of wages cannot enter into the firm's decision making process of equilibrium level of production. Such examples of quasi-cost are likely to be numerous in an Islamic economy. Even today, in Muslim economies it has been observed that a lot of employment of labor takes place merely out of the spirit of benevolence and not on the basis of marginal productivity of labor. If marginal productivity of labor were the criterion, employment levels would be much less (e.g., in Pakistan the unemployment rate is only around three percent, whereas the marginal productivity is much less than the prevailing wage rate). Instead of arguing that the marginal productivity theory is not relevant in Islamic economics, it should be argued that the employer is not treating some part of the labor cost as economic cost. The students may be given an assignment to list the Islamic costs that are not treated as costs in the conventional framework, and the conventional costs that are not treated as costs in the Islamic framework.

The rest of the discussion under the title of Cost Theory should be the same as in any conventional textbook.

Theory of Firm

Theory of Firm should first answer the question, How is a firm created? More fundamentally, the question should be asked, How is an entrepreneur generated?

As a result of the allocation of time (as discussed earlier under the topic consumption theory) labor supply will be generated. How much of this labor will choose wage-paid jobs and how much of it will choose to be entrepreneurs (and hence a firm) to organize productive activity? Similarly, the consumer choice between present and future consumption results in savings. Under the Islamic framework, these savings have to be invested so that they are not deleted by zakah. Part of the savings will be converted into rentable assets and part will be put into an investment activity. This generates entrepreneurship. Firm, therefore, should be shown as emerging out of consumers and hence, firms should be argued as having the same motivation as consumers. This scenario will also help the students to think of alternative goals of the firm. The fact that conventional economic theory treats the firm as an abstract entity is something that may not fit into the economic system of Islam. A scholar of fiqh may be invited to explain the nature of the firm and its liability (as opposed to the limited liability of modern joint stock companies).

The question of how the firm is generated should start by reviewing various forms of economic enterprises or business organizations in Islam and their operation principles, particularly, with respect to the sharing of the outcome. Then compare the economic enterprises of *mudārabah* and *mushārakah* with the economic enterprises in Western societies. This discussion should not confine itself to the industrial sector. The forms of economic enterprise in agriculture, such as *muzāra'ah* (temporary sharecropping contract) and *musāqāh* (sharecropping contract over the leasing of a plantation, limited to a one-crop period), etc., also should discussed.

Detailed discussions of the following should be presented: various forms of market structures within which economic enterprise can possibly operate, along with a review of the Islamic position on dif-

ferent types of market structures; joint stock companies as a form of firm; and the question of limited liability in the light of the shari'ah. A lecture by a scholar of fiqh on the subjects of business ethics, the conditions for operation in the market (rules relating to trade), etc., is also desirable. This presentation should then be rediscussed by the teacher to explain what market structures are promoted by Islam and what contemporary market structures are not desirable in Islam.

Goals of economic enterprise is the next topic that should be discussed. Profit maximization is one legitimate goal but there can be many other goals. Even conventional economics recognizes several goals other than profit maximization. A review of all the goals is necessary, along with the Islamic positions on each one of them. This should be followed by a discussion of the possible goals that can be enumerated in view of the Islamic motivations for production discussed under the theory of production. With reference to motives, firms may be divided into various categories, e.g., profit-motived individual firms, society-regulated firms, nonprofit-motivated individual firms, state enterprises, trust enterprises, social-cum-profit-motivated firms, etc.

After discussing the goals and the types of firms, the remaining discussion about the theory of firm should be confined to discussing firm equilibrium under profit maximization. Firm behavior under alternative goals should be left for discussion in the second semester. The behavior of a profit maximizing firm under various market structures (other than competitive markets) prevailing in contemporary economies should also be discussed as given in a conventional textbook. However, Islamic positions on these market structures should also come under discussion. For example, while discussing the price-discriminating behavior of a firm relevant shari'ah regulations should come under discussion, including the Islamic conditions under which a firm may discriminate in charging prices for its products. Similar discussions are required while discussing the behavior of monopolist or oligopolist firms or of a firm under monopolistic competition.

Second Semester

Theory of Firm under Alternate Pricing System

The profit maximizing firm is one type of firm. All firms may not behave in a way that requires marginal cost pricing conditions. This has been recognized by conventional theory as well as through empirical analysis of the behavior of firms in contemporary economies. Criticism of neoclassical theories should be discussed using the conventional textbooks and then followed by the Islamic basis for rejecting the marginal price conditions for those types of firm that may not be motivated to maximize their profits.

Several alternative firm pricing systems are discussed in a conventional textbook (e.g., in Appendix D, see chapters 11 through 18). These alternative pricing systems should be reviewed from the point of view of Islamic norms of market behavior. In fact, students should be asked to write a critique of each pricing system from the Islamic point of view. The teacher may suggest possible dimensions in which they can review these systems from the Islamic point of view, but the students themselves should apply their own knowledge of fiqh *al mu'āmalāt* (particularly that relating to production, exchange, pricing, marketing, etc.) to analyze, criticize or promote these systems. They may ask the teachers of fiqh *al mu'āmalāt* to guide them to relevant literature in preparing the reviews. The student reviews should be saved and placed in the library for the next class to consult before they write their own reviews.

The conventional textbook on microeconomics provides a discussion on more than a dozen theories of firm behavior (see Appendix D, chapters 11 through 18). It is possible to select one of these theories and make it represent the Islamic behavior of a firm by making some marginal modifications. As an assignment, ask the students to explain which theories most closely represent Islamic behavior and how those theories can be made more Islamic.

Another useful exercise is to ask the students to classify firms according to their nature and objectives, identifying which theories in

the textbook most closely describe a firm found in an Islamic economy and, when they have been identified, how they can be modified to more closely represent an Islamic firm.

Give particular attention to behavioral theories for the study of private sector firm behavior discussed in conventional textbooks because theory of firm, from an Islamic perspective, means nothing else but the identification of a peculiar behavior of firm. Theory of private sector firms simply require an alternate behavioral theory of firm.

Managerial theories may be especially helpful for explaining the behavior of public enterprise or 'trust' firms, while average cost pricing theories may be helpful for building up Islamic theories of socially motivated firms.

Linear programming, which is simply a mathematical tool, is an important topic in microeconomics. It may be taught in the same way as discussed in a conventional textbook (see the details under chapters 19 and 20 shown in Appendix D).

Factors of Production, Factor Markets And Factor Pricing

After a thorough exposure to the contents of a conventional textbook on the topics of factors of production, factor markets and factor pricing, the following should be brought under discussion: The limitations of existing definitions and classifications of factors of production in capturing the features of the Islamic approach towards the factors of production.

It must be emphasized that theory of distribution heavily depends on how various factors of production are rewarded for their contribution to the output. The emphasis, therefore, should be to work out the peculiarities of the Islamic approach to the rewards of factors of production. Four points require particular discussion.

First, it should be explained why interest has been prohibited or, in other words, why under certain circumstances capital cannot get a

fixed reward and can only earn profit by bearing the risk of loss. In this connection, a brief exposure to the fiqh literature covering the following topics should be provided:

- The principles of *Ijār* (renting) in Islam. What can and cannot be rented? What are the conditions of a rent contract? Who is liable for what under a rent contract?
- The principles of earning profit. What makes a profit legitimate? The principle of *al ghurm bi al ghurm* (benefit through loss) and its implications for defining the concept of profit. How profit is different from rent? Under what condition mark-up on sales becomes a legitimate profit and under what conditions it does not?

These topics, in fact, may first be discussed by a scholar in fiqh and later on reformulated into the language of modern economics by the teacher.

Second, the concept of time-value discounting requires elaborate discussion. For example, why interest (as time value of money) is not allowed but the prices in a *al bay' al mu'ajjal* (delayed business transaction) and a *bay' al salām* (completed business transaction) are allowed to have price differentiation on the basis of time. What justifies time-value discounting and under what conditions is it not allowed? Again, a scholar of fiqh may be asked to give Islamic positions after which the teacher may present the same material in modern economic terminology.

Third, human labor as a factor of production requires discussion from the Islamic point of view, particularly because it has a human dimension and Islam pays special attention to this dimension. For example, the rent of an asset that is in excess supply may be allowed to go down to any limit (theoretically, it may become zero or even negative, at least up to the amount of the rate of zakah). But the rent of labor (i.e., wages) cannot be allowed to fall below a certain minimum required for sustenance. If wages cannot be allowed to fall to zero or negative how then is the minimum wage to be determined in a labor surplus economy? A scholar in fiqh may discuss the issue

from the point of view of Islam, and the feasibility of the same in the context of firm behavior may also be discussed in the class.

Fourth, conventional economic theory does not implicitly discuss determination of the reward of an entrepreneur. Conventional economics discusses the reward of all factors of production other than the entrepreneur. The entrepreneur is kept out of the discussion because of the following reasons:

- Uncertainty is assumed away in the conventional framework, therefore, profit is nothing but an interest, a wage or a rent and hence there is no need to consider separately a theory of reward for the entrepreneur.
- Entrepreneur or firm can be assumed to be some an abstract entity and hence a residual (after payment of all wages and rents) is the reward of the firm and since it is an abstract entity, the implication of negative or positive reward may not have much significance.

An Islamic analysis requires a distinct treatment on the follow grounds:

- Factors of production cannot be assumed to have been employed only on the basis of fixed rent or wage. At least one factor of production, i.e., money-capital, is not allowed to earn rent. It can only earn profit by bearing a risk. The Islamic economic analysis, therefore, will have to treat this factor separately and distinctly and the theory of marginal productivity cannot be allowed. Once money-capital is treated distinctly because it cannot get fixed rent, then the possibility of other factors being employed on a profit-and-loss-sharing basis should also be considered. In situations of an excess supply of labor or capital, these factors of production would like to look for an entrepreneurial job rather a low wage or rent. How various factors decide to get an entrepreneurial job and on what factors their entrepreneurial rewards depend, therefore, should be an explicit part of the economic analysis.
- Entrepreneur of firm cannot be considered, in the Islamic framework, an abstract business entity. It has to be a specific

resource (human or nonhuman) which can be held liable for bearing the losses. It means that an entrepreneur or a firm will either be a human resource or it will be a physical resource. How the resources decide to become entrepreneurial resources, what will determine their reward, what are the implications of risk of bearing losses on their supply and demand, what will be the effect of their actual loss on their supply and demand, etc. are the questions to be discussed.

In other words an economic analysis of factors of production may implicitly recognize the presence of two types of factors of production: entrepreneurial and fixed-reward receiving. The implications of the socio-economic institutional framework of an Islamic economy on supply and demand of both types of factors of production requires detailed discussion. For example, the institution of social insurance (based on zakah and *sadaqah*) may increase the supply of small entrepreneurs. (The zakah and *sadaqah* may take care of their survival in case they incur loss.)

The discussion of the Islamic approach to the factors of production should be followed or preceded by a full discussion of the contents of a conventional textbook that deals with supply and demand of factors of production and factors of pricing in perfectly competitive and imperfectly competitive markets.

The conventional textbooks also discuss income distribution in terms of factor shares. Distribution theory in Islamic economics requires discussion as a separate topic and not as an off-shoot of the rewards of factors of production which is determined by the firm under profit-maximizing behavior. At this stage, however, it must be pointed out that even for the functional income distribution between factors of production, a distinctive approach will have to be adopted to take into adequate account the share of entrepreneurial factors of production in the total output. One additional parameter that will be of interest in an Islamic economy, in the context of functional distribution (or factor share of income), is the ratio in which profits in the economy are distributed among human and physical resources within the entrepreneurial factors of production employed in the econo-

my on a profit-and-loss-sharing basis. It may be pointed out that the profit-sharing ratio between human and physical resources (joining hands on a profit-and-loss-sharing basis) is free to be determined by market forces. This ratio, therefore, depends on several factors, notably:

- Supply and demand of the physical resources on a rent basis;
- Supply and demand of human resources on a wage basis;
- Supply and demand of entrepreneurial resources on profit-and-loss-sharing basis; and
- Risk of loss in productive activities in the economy.

Theory of Distribution

Normally, the theory of distribution is taught only as part of factor pricing. Definition of factor shares is introduced as a measure of functional distribution. While teaching microeconomics in Islamic economics, the theory of distribution should be taught as a distinct topic, not merely as a supplemental topic of factor pricing. Islam emphasizes distribution and it should be clearly defined as an economic activity of society in the same way as the production activity is.

The main emphasis of discussion under this topic should be that within the Islamic framework, distribution is part of microeconomic behavior. This behavior has implications for personal income and wealth distribution, as well as functional income distribution. In fact, it is this personal distribution of income and wealth resulting from microeconomic behavior that makes microeconomic theory within the Islamic perspective a distinct economic theory. The conventional microeconomic theory has no room for the discussion of personal income and wealth distribution.

From the fact that Islam provides economic motivation to induce the distribution of wealth in society it is obvious that distribution of personal income and wealth in an Islamic economy is not just a coercive transfer of resources but is very much a part of economic behavior. Verse 30:39 from the Qur'an reveals the following:

> That which you give in usury in order that it may increase on (other) people's property has no increase with Allah; but that which you give in charity, seeking Allah's countenance, has increase manifold.

Transfer of one's income or wealth to the less privileged in society has been promised to bring gains, which includes gains in the Hereafter.

Keeping in view the consumer behavior analysis discussed earlier, it can be seen that the distribution of personal income and wealth in the Islamic perspective is nothing but a part of the consumer's total spending that is done for the sake of a reward in the Hereafter. The first stage of choice, discussed earlier, i.e., is determining how to allocate income between type I and type II spending and is a micro-decision of how much of one's income will be distributed. This dimension is absent from conventional economic theory. No doubt charitable behavior can be seen in non-Islamic economies as well, but this is ignored in conventional economic theory, perhaps on two grounds. First, because type II spending is not considered as an economic choice since it is considered a noneconomic activity that is done for no reward or economic gain but for some psychological satisfaction. Second, because, for an average person, the expenditure on type II spending is generally very low, rather insignificant, and therefore not considered an important aspect to be studied prominently in the theory of consumer behavior.

Type II spending from the Islamic perspective is not only an important aspect of consumer behavior but also involves explicit gains and, hence, is required to be discussed as part of microeconomic theory. Type II spending should be treated as a decision to distribute income. The factors that will determine the level of type II spending should be discussed in detail in the class. The parameters of consumer behavior that will determine the level of type II spending and the parameters of the economy that will make it an effective instrument of personal income and wealth distribution in society should be sorted out through class discussion.

Functional distribution of income should be brought under discussion in detail now along the lines already discussed. Factors of

production, their supply, and their pricing mechanism should be used to explain the functional distribution of income.

General Equilibrium

Most of the discussion in the area of general equilibrium, for the time being, will have to be done in the conventional framework. As a passing remark, however, the following can be mentioned.

Using the Arrow-Debreu type economy, it can be discussed to what extent existence and stability conditions will be affected if interest does not exist in the economy as price of capital. This, in other words, means specifying a pricing mechanism of converting a commodity in one period of time to the same commodity in another period of time. As far as we can assume the following:

- There is no uncertainty.
- Real commodities are exchanged only through money as a medium of exchange.
- No commodity (including money) will be exchanged for exactly the same commodity.

It should not be difficult to argue that the absence of interest does not affect the existence, stability, and other conditions of general equilibrium of the Arrow-Debreu type economy. It can also be argued that even the uncertainty assumption can be taken out without affecting the Arrow-Debreu type economy. Risk can be considered as a commodity having a price called profit and the rest of the analysis should remain unaffected. What is important is to assume that there is no price for 'time'. Pricing of time arises when a commodity in one period of time is to be exchanged for a similar commodity in another period of time.

It may, however, be emphasized that the Arrow-Debreu type economy is incapable of describing an Islamic economy. This is because in the Islamic framework, the market is not the only institution of exchange. Nonmarket institutions of exchange are quite substantial in an Islamic economy and hence cannot be ignored. What is important about these nonmarket institutions is that they reinforce the

system and help it work more 'efficiently' by providing solutions to what in conventional economies is referred to as 'market failures'.

The institution of the market cannot achieve all objectives of the Islamic economic system. It achieves only what is called 'efficiency'. There are a whole set of objectives of an Islamic economy that do not fall into the conventional concept of efficiency. But there are several Islamic institutions that take care of the market failures to achieve various objectives of the economy other than efficiency. For example, type II spending in consumer behavior and production for non-worldly motives achieves an important objective of the Islamic economy, (*viz.* distribution), which cannot be achieved by the market.

Hence, in the discussion of general equilibrium, various such economic institutions other than the market, which achieve specific objectives of an Islamic economy, need highlighting with various examples. This should clearly bring into focus the fact that not only is the Arrow-Debreu type economy unable to describe an Islamic economy but also that the study of general equilibrium in an Islamic economy requires an entirely different framework yet to be developed.

Another important point to be discussed in the class in the context of general equilibrium is that even a competitive market economy as described by Arrow-Debreu may fail to achieve market efficiency in several circumstances and a nonmarket institution may achieve efficiency even in the exchange of such commodities which are considered marketable. In this case, an example may be given even from contemporary market economies. A good example is the market of blood donations. In the United States, blood is donated under the framework of a competitive market and it has been realized that the market is not achieving 'efficient' results. In several European countries, on the other hand, blood donation is a voluntary institution and there the need of blood donation is being fulfilled more efficiently. The point is that ethical- and moral-based institutions may achieve, in several instances, better results than market institutions. Islam provides a strong ethical and moral base for the development of nonmarket institutions. The strength of many of

these institutions lies in the fact that they promise a reward in the Hereafter, and hence, the human instinct to maximize gains is satisfied. The ethical- and moral-based institutions are required to be as important a part of general equilibrium analysis as the market.

Welfare Economics

Welfare economics is concerned with the evaluation of alternative economic situations from the point of view of the society's well-being.

Defining a criterion with which alternative economic situations can be evaluated from the point of view of social well-being or welfare is important in the theory of economic welfare. Conventional textbooks provide a summary of various criteria put forward by the economists at different points of time. These criteria should be discussed, particularly with reference to their relevance for an Islamic economy.

The recent approach that requires formulation of a social welfare function should be discussed in detail, along with the related efforts of contemporary Islamic economists. It may be pointed out that problems in the evaluation of different situations from the welfare point of view arise because interpersonal comparison of utility is not possible in the conventional framework. On the other hand, if we deal with the concept of need (instead of utility), based on the concept as defined, for example, by Shatibi, we find ourselves far ahead of the conventional economists in evaluating different situations from the welfare point of view. This is because an interpersonal comparison of need, based on *maṣlaḥah*, which is objectively defined, is more feasible than the interpersonal comparison of utility, which has no objective basis for the purpose of definition. For example, if there is gross inequality in society, one group being very rich and another being very poor, in the conventional framework, the state intervention to redistribute income in the economy cannot be definitely regarded to have increased social welfare.

On the other hand let us see the Islamic economic scenario. In a situation where there exists a rich group that is believed to be fulfilling all its essentials, complementarities, and amelioratories and still have resources to waste (doing *isrāf*) while there is another group so poor that it does not even have the essentials to protect its life and property, then, if an Islamic state redistributes income so that the poor group at least fulfills all its essential needs while the rich group is deprived of fulfilling some of its amelioratory needs, the welfare (*maṣlaḥah*) of the society will be considered to have increased.

Another problem that arises in interpersonal comparisons of utility in the context of social welfare is the conflict in individual and social welfare in a non-Islamic society. If a person derives utility from narcotics, then, in order to improve society's welfare, the welfare of the individual will have to be curtailed by prohibiting him from using narcotics. Such conflicts are minimized if we analyze social welfare by comparing needs (rather than utility). Since in an Islamic framework the basis of need is *maṣlaḥah,* and the *maṣlaḥah* of an individual is the *maṣlaḥah* of society, and the *maṣlaḥah* of society is the *maṣlaḥah* of the individual, hence, it is unlikely that the economic welfare of society may conflict with the welfare of the individual in terms of individual and social needs. Prohibiting an individual from drinking alcohol will unambiguously increase the welfare of the individual as well as society.

The Arrows Impossibility Theorem may also be discussed with reference to an economy where need (based on *maṣlahah*) and utility are the guiding factors for consumption and production activities. The discussion of welfare also requires a discussion of the relationships of property rights with social welfare. The conventional literature addresses these issues. Some key issues should be selected from the literature in order to discuss them from the Islamic perspective.

This discussion should then be followed by the remaining contents of a conventional textbook under the heading of welfare economics (see the contents of Chapter 23 and Appendix D).

Appendix A

Proposed Outline of the Microeconomics Course to be Taught in Islamic Perspective at Intermediate Level in An Undergraduate Program in Economics

1. **Introduction**
   a. Economic problem of man: secular point of view and Islamic point of view.
   b. Economic agents and institutions: role of the state, in the context of microeconomic behavior, in the secular framework; and comparison with the Islamic framework.
   c. Economic institutions: classification of market; Islamic perspective on market structures.
   d. Methodology for the study of microeconomic behavior: the role of axioms in developing a social science; and the amenability of Islamic economics to be described with the help of the Islamic axioms for human behavior.

2. **Concept of Ownership and Property Rights**
   a. Concept of ownership and property rights
      i. What does property rights mean?
      ii. Types of property rights.
   b. Main elements of the system of property rights in Islam.
   c. Main features of the system of private property rights in Islam.
   d. Types of private property rights in Islam.
   e. Courses and means of acquiring private property rights.
   f. Limitations on the use of private property rights in Islam.
   g. Rights of others in private property rights.
   h. Brief comparison of Islamic system of property rights with the capitalistic and socialistic system of property rights.

3. **Theory of Demand**
   a. Theory of consumer behavior
      i. Cardinal utility theory.
      ii. Indifference curve analysis.

      iii. Distinction between want and need (derived from the distinction between utility and *maṣlaḥah*).

      iv. Need as a basis for the analysis of consumer behavior as opposed to utility as a basis for the analysis.

      v. Revealed preferenceh hypothesis and its relevance for the analysis of consumer behavior in the Islamic perspective.

      vi. Consumer's surplus under the utility-based approach and under the need-based approach.

  b. Some extensions of the consumer theory

      i. Application of indifference curve analysis in income-leisure choice and in intertemporal choice.

      ii. Consumer's time-allocation in the Islamic framework and income-leisure choice as part of the time-allocation problem.

      iii. Intertemporal choice in the secular framework and in the Islamic framework.

      iv. Savings behavior in the secular framework and in the Islamic perspective.

      v. Risk bearing element in consumer behavior with special emphasis on the generation of supply of entrepreneurs/investors as a result of the decision making of a consumer in the context of his choices.

  c. Market demand

      i. Derivation of market demand.

      ii. Determinants of demand.

      iii. Elasticities of demand.

      iv. Market demand, total revenue and marginal revenue.

      v. Demand for the product of a firm.

  d. Linear expenditure systems and their relevance in explaining market demand in an Islamic economy

4. Theory of Production

  a. Motivation for production in an Islamic economy compared with a non-Islamic economy.

      iii. Concept of human labor—entrepreneurial labor and fixed-wage receiving labor.

      iv. Entrepreneur/firm in the Islamic framework.

  c. Need to distinguish between entrepreneurial factors of production and rent-receiving factors of production.

  d. Factor pricing of the rent-receiving factor of production in the conventional framework (in competitive and imperfectly competitive markets).

  e. Relevance of conventional factor pricing in the Islamic framework.

  f. Supply, demand, and pricing in factor markets in the Islamic framework.

  g. Elasticity of factor substitution and the shares of factors of production (within rent-receiving factor—only in the conventional framework).

  h. Factors of determining the profit-sharing ratio between entrepreneurial human resources and entrepreneurial physical resources.

  i. Technological progress and income distribution in the conventional framework.

  j. Rents and quasi rents—Islamic positions.

  k. Nonhomogeneous factors and wage differentials along with the Islamic perspective on wage differential.

  l. Euler's product exhaustion theorem and its review in the presence of entrepreneurial factors of production.

  m. Clark-Wicksted-Walras "product-exhaustion theorem" and the implications of introducing entrepreneurial factors of production in the theorem.

9. Theory of Distribution

  a. Dimensions of distribution in an Islamic economy.

      i. Personal and functional.

      ii. Income and wealth.

      iii. Distribution and redistribution.

  b. Personal income distribution as a part of microeconomic behavior.

    c.   Distinctive features of functional distribution of income in an Islamic economy.

        i.   Features based on the nature of factors of production.

        ii.   Features based on attitudes towards labor.

10. General Equilibrium

    a.   Contents of a conventional standard text on various aspects of general equilibrium (e.g., see contents of chapter 22 as shown in appendix D).

    b.   Relevance of existence, uniqueness, and stability condition of Arrow-Debreu type economy from an Islamic economy.

    c.   Islamic economy as an economy beyond the competitive market economy—the role of nonmarket institutions in achieving economic objectives of the society.

11. Welfare Economics

    a.   Criteria of evaluation of social welfare as put forward by conventional economists from time to time.

    b.   Social welfare function as discussed in conventional textbooks and their critical evaluation from the point of view of their relevance for an Islamic economy.

    c.   Interpersonal comparison of *maṣlaḥat al 'ibād* as compared to interpersonal comparison of utility.

    d.   Possible arguments of a social welfare function for an Islamic economy and other contents covered in a conventional textbook under this topic (e.g., see the contents of chapter 23 in appendix D).

Appendix B
Proposed Reading List[*] for the Course
Suggested in Appendix A

1. Introduction

Somuelson, P.A, and W.D. Nordhaus. *Economics*. 12th ed. New York: McGraw Hill Book Co., 1985, pp. 24-26.

Al Shatibi. *Al Muwafiqt*. Cairo: Maktabah Muhammad Ali El-Azhar. N.d. vol. 2, pp. 126-134.

Naqvi, S.N.H. *Ethics and Economics; An Islamic Synthesis*. Leicester; The Islamic Foundation, 1981 pp. 37-40.

Iqbal, M. *Ethico Economic System of Islam.*Research Paper Series Center for Research in Islamic Economics. Jeddah, Saudi Arabia: King Abdulaziz University, n.d. pp. 1-37.

Faridi, F.R. "A Theory of Fiscal Policy in an Islamic State." In *Fiscal Policy and Research Allocation in Islam,* ed. Z. Ahmad, M. Iqbal, and M.F. Khan. Islamabad, Pakistan: Institute of Policy Studies, n.d.

Mannan, M.A. "Islamic Economics as a Social Science." *Journal of Research in Islamic Economics* 1, no. 1 (Summer 1983): 49-62.

Ariff, Muhammad. "Towards a Definition of Islamic Economics: Some Scientific Considerations." *Journal of Research in Islamic Economics* 2, no. 2 (Winter 1984): 87-103.

Mannan, M.A. *Making of Islamic Economic Society,* chps. 1-4. N.p., n.d.

Koutsoyiannis, A. *Modern Microeconomics*. 2nd ed. London: Macmillan, 1979, pp. 3-12.

Blaugh, M. *Methodology of Economics*. Cambridge: CUP, 1980, pp. 55-250.

Kahf, M. *The Islamic Economy*. Muslim Students Association of U.S. and Canada. pp. 1-11.

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[*] This reading list is suggested for the teachers but not for the students. From this list teachers may develop a reading list for their students.

Khan, Shah Rukh Raf. "Islamic Economics: A Note on Method-ology." *Journal of Research in Islamic Economics* 2, no. 2: 83-85.

2.   Concept of Ownership and Property Rights

Siddiqi, M.N. *Islam Ka Nazriyyah-e-Milkiyyat* (Ownership in Islam). 2 vols. Lahore: Islamic Publications, 1968.

Khan, M. Fahim. "System of Ownership and Private Property Rights in Islam." (Memeographed) IIIE Islamic economcis program, International Islamic University, Islamabad, Pakistan.

Al Maamiry, Ahmed H. *Economics in Islam.* Delhi, India: Lancer Books, 1987, pp. 48-103.

Furubotn, E.G., and S. Pejovich. "Property Rights and Economic Theory: A Survey of Recent Literature." In *The Making of Islamic Economic Society,* by M.A. Mannan. N.p., n.d. chps. 5-8.

Demetz, H. "Towards a Theory of Property Rights." *American Economic Review* 57 (May 1967): 374-73.

Mustafa, Ahmed H., and Askari, Hossein, G. "Economic Implications of Land Ownership and Land Cultivation in Islam." In *Distributive Justice and Need Fulfillment in an Islamic Economy,* ed. Munawar Iqbal. Islamabad, Pakistan: International Institute of Islamic Economies, n.d.

3.   Theory of Demand

Koutsoyiannis, *Modern Microeconomics,* 2nd Ed. London: Macmillan. 1979 pp. 13-66.

Zarqa. "Islamic Economics: An Approach to Human Welfare" in *Studies in Islamic Economics,* edited by Ahmad. Islamic Foundation Leicertes, pp. 3-9.

Khan, M.F., and N.M. Ghifari. "Objectives of Shari'ah and Some Implications for Consumer Theory." Mimeographed, International Institute of Islamic Economics, Islamabad.

Khan, M. Fahim. "Macro Consumption Function in an Islamic Framework." *Journal of Research in Islamic Economics* 1, no. 2: 1-24.

Tag el-Din, S.I. "Macro-Consumption Function in an Islamic Framework Comment." *Journal of Research in Islamic Economics* 1 (Summer, 1984): 57-61.

Mahdi, S. Iqbal. "Macro-Consumption Function in an Islamic Framework Comment." *Journal of Research in Islamic Economics* 2, no. 2 (Winter 1984): 73-77.

Hasan, Zubair. "Macro-Consumption Function in an Islamic Framework Comment." *Journal of Research in Islamic Economics* 2, no. 2 (Winter 1984): 79-81.

Kahf, M. "Saving and Investment Functions in Two-Sector Islamic Economy." In *Monetary and Fiscal Economics of Islam,* Edited by M. Ariff. Jeddah: Centre for Research in Islamic Economics King Abdulaziz University Jeddah, n.d.

Zarqa, A. "An Islamic Perspective on the Economics of Discounting in Project Evaluation." In *Fiscal Policy and Resource Allocation in Islam* Institute of Policy Studies. N.p, 1983, pp. 203-251.

Khan, M. Fahim. "Time Value Discounting in Islam." Mimeographed, International Institute of Islamic Economics Islamabad, n.d.

Masri, Rafiq. *Al Riba Wa al Hasam al Zamani Fi al Iqtiṣad al Islami.* N.p., n.d.

Ariff, M. "Towards Establishing the Micro Foundations of Islamic Economics: A Contribution to the Consumer Behaviour in an Islamic Society." Paper presented at 12th Annual Conference of the Association of Muslim Social Scientists, November 1983.

Stone, R. "Linear Expenditure System." *Economic Journal* (1954).

Fishburn, P.C. "Lexicographic Orders, Utilities and Decision Rules." *Management Science* (July 1974).

4. Theory of Production and Costs

Koutsoyiannis, A. *Modern Microeconomics,* Ch. 3 and 4.

Kahf, Monzer. *The Islamic Economy,* Ch. 3.

Siddiqi, M. Nejatullah. *Economic Enterprize in Islam.*

Siddiqi, M. Nejatullah. "Economies of Profit Sharing." In *Fiscal Policy and Resource Allocation in Islam*, edited by Z. Ahmad, *et al.* Islamabad: Institute of Policy Studies, 1983.

5. Theory of Firm

Koutsoyiannis, A. *Modern Microeconomics*. Chap. 5-18 (chapters 5 to 10 to be covered in the first semester and chapters 11 to 18 to be covered in the second semester).

Siddiqi, M. Nejatullah. *Economic Enterprize in Islam*. Chap. 1, 2 and 3.

Kahf, Monzer. *The Islamic Economy*. Chapter 4.

Mannan, M.A. *The Making of Islamic Economic Society*. Chap. 10 and 11.

Metwally, M.M. "A Behavioral Model of Islamic Firm." Research Paper Series (English) No. 5 of Centre for Research in Islamic Economics King Abdulaziz University Jeddah.

Islabi, Abdul Azim. "Ibn Taimeyah's Concept of Market Mechanism." *Journal of Research in Islamic Economies* 2, no. 2 (Winter 1985): 55-66.

Muharji, Badal. *Theory of Firm in an Interest Free Economy*. Jeddah: Centre for Research in Islamic Economics, King Abdulaziz University.

Boulding, K. "The Present Position of the Theory of Firm." In K.E. Boulding and W.A. Spvy (eds), *Linear Programming and Theory of Firm*. New York: Macmillan, 1960, pp. 1-17.

Coarse, R. "The Nature of the Firm." *Economica* 4 (November 1937): 386-405.

Goper, W. "Theory of Firm: Some Suggestions for Revision." *American Economic Review* 39 (December 1949): 204-22.

6. Factor Pricing

Koutsoyiannis, A. *Modern Microeconomics*. Chapter 21.

Khan, M. Fahim. "Factor of Production and Factor Markets in Islamic Framework." Mimeograph, Centre for Research in Islamic Economics King Abdulaziz University, Jeddah.

Masud, M. "Islamic Land Tenure System." Discussion Paper, International Institute of Islamic Economics, Islamabad.

Tabakoglu, A. "Labour and Capital Concepts in Islamic Economics." In M. Fahim Khan (ed.), *Distribution in Macroeconomic*

Framework. Islamabad: International Institute of Islamic Economics, n.d. (Under Print).

Hassan, Zubair. "Theory of Profit: The Islamic View Point." *Journal of Research in Islamic Economies* 1, no. 1: 1-16.

Chishti, Salim. "Theory of Profit: The Islamic View Point-Comment." *Journal of Research in Islamic Economics* 2, no. 1(Summer 1984): 49-51.

7. Distribution Theory

Koutsoyiannis, A. *Modern Microeconomics.* Chap. 21, pp. 468-484.

Iqbal, Munawar (ed.). "Distributive Justice and Need Fulfillment in an Islamic Economy." In *Islam International Institute of Islamic Economics.* Islamabad, pp. 1-24.

Zarqa, Ana. "Islamic Distributive Schemes." In Munawar Iqbal (ed.), *Distributive Justice and Need Fulfillment in an Islamic Economy.* Islamabad: IIIE, pp. 159-218.

8. General Equilibrium and Welfare Theory

Koutsoyiannis, A. *Modern Microeconomics.* Chap. 22.

Khan, M. Ali. "General Equilibrium and Capital Pricing in Islamic Framework." International Institute of Islamic Economics, Islamabad. (Under Print)

Arrow, K., and G. Debreau. "Existence of an Equilibrium for a Competitive Economy." *Econometrica* 22 (July 1954): 265-90.

Arrow, K. "An Extension of the Basic Theorem of Classical Welfare Economics." In J, Neyman ed., *Proceedings of the Second Barkley Symposium on Mathematical Statistics and Probability.* Barkely, 1951, pp. 507-532.

Bator, F. "The Anatomy of Market Failure." *Quarterly Journal Economics* 8 (August 8, 1972): 351-379.

9. Welfare Economics

Konlsoyinnis, A. *Modern Microeconomics.* Chap. 23.

Zarqa, Anas. "Islamic Economics: An Approach to Human Welfare." In Khurshid Ahmad, ed., *Studies in Islamic Economics.* Islamabad: Institute of Policy, 1980.

Course, R. "The Probelm Social Cost." *Journal of Law and Economics* 3 (October 1960): 1-14.

Appendix C
Sample of Student Assignments on Required Topics to Be Discussed in the Islamic Perspective

1. What is the economic problem of man in the Islamic perspective and how does it differ from that in the secular perspective.
2. Critically examine the axioms underlying the Conventional Consumer Theory. Does the explanation of consumer behavior in the Islamic perspective require a different set of axioms? If so, what are the axioms and how do they differ from the secular axioms?
3. Distinguish between 'need' of *maslahah* and 'want' as implied in the concept of utility. Compare their relative merits and demerits for their application of the analysis of consumer behavior in the Islamic perspective.
4. Explain the 'need' of savings as opposed to the 'need' for investment in the Islamic perspective.
5. Explain the concept of *isrāf*, first using the concept of utility in the conventional sense, and then using the concept of *maslahah* as explained by Shatibi.
6. Explain how an Islamic consumer will decide what is the *'afw* (surplus) that he is required to spend in the cause of Allah. Use the concept of need (for consumption and savings/investment) to explain this concept. What parameters will determine the size of the *'afw* for a typical consumer.
7. List such possible costs of a firm in conventional framework that may not be considered as cost in the Islamic framework and vice-versa.
8. Implication of Islamic principles of *ijārah* for the classification of factors of production.
9. Islamic principles of profit and their implications for supply and demand of entrepreneurs.

10. Give a classification of firms according to its objectives and the nature of ownership of its resources and its liabilities keeping in view the Islamic norms of business organization.

11. From chapters 11 through 18, of Kousoyiannis, find out which theory of pricing of a firm can be regarded as closest to the Islamic approach. Suggest modifications that can bring it closer to the Islamic approach. If you think none of these theories can be regarded as anywhere near the Islamic approach, then suggest your own theory.

12. What aspects of an Islamic economy will fail to be reflected if the conventional definition of factors of production is used to explain the Theory of Production or the Theory of Costs. Suggest an alternative classification of factors of production for an Islamic economy.

13. Discuss the nature of personal income distribution and wealth distribution in an Islamic economy and how it is related to micro-economic behavior in the Islamic economy.

14. Give an Islamic criterion for evaluating situations from the point of view of the economic welfare of society. How does this criterion differ from the criteria given by Islamic economists from time to time?

Appendix D

Contents of a Typical Book on Microeconomics[*]
of Intermediate Undergraduate Level

Part One: The Basic Tools of Analysis

1. **Introduction**
   a. Economic Models
   b. Classification of Markets
   c. The Concept of an 'Industry'
      i. The Importance of the Concept of an Industry
      ii. Criteria for the Classification of Firms into Industry

2. **Theory of Demand**
   a. Theory of Consumer Behavior
      i. The Cardinal Utility Theory
      ii. The Indifference Curves Theory
      iii. The Revealed Preference Hypothesis
      iv. The Consumers' Surplus
      v. Some Applications of Indifference Curves Analysis
   b. The Market Demand
      i. Derivation of the Market Demand
      ii. Determinants of Demand
      iii. Elasticities of Demand
      iv. Market Demand, Total Revenue and Marginal Revenue
   c. Recent Developments in the Theory of Market Demand
      i. The Pragmatic Approach to Demand Analysis
      ii. Linear Expenditure Systems
   d. The Demand for the Product of a Firm

3. **Theory of Production**
   a. The Production Function for a Single Product
   b. Laws of Production
      i. Laws of Returns to Scale
      ii. The Law of Variable Proportions

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[*] This table of contents has been taken from A. Koutsoyiannis, *Modern Microeconomics*, Macmillan Publishers, 1985.

Part Two: Theory of the Firm

Section A: Perfect Competition, Monopoly, Monopolistic Competition

5. **Perfect Competition**
   a. Assumptions
   b. Short-Run Equilibrium
      i. Equilibrium of the Firm in the Short Run
      ii. The Supply Curve of the Firm and the Industry
      iii. Short-Run Equilibrium of the Industry
   c. Long-Run Equilibrium
      i. Equilibrium of the Firm in the Long Run
      ii. Equilibrium of the Industry in the Long Run
      iii. Optimal Resource Allocation
   d. Dynamic Changes and Industry Equilibrium
      i. Shift in the Market Demand
      ii. Predictions of the Perfect Competition Model when Costs Change
      iii. Effects of Imposition of a Tax

6. **Monopoly**
   a. Definition
   b. Demand and Revenue
   c. Costs
   d. Equilibrium
      i. Short-Run Equilibrium
      ii. Long-Run Equilibrium
   e. Predictions in Dynamic Changes
      i. Shift in the Market Demand
      ii. An Increase in the Costs of the Monopolists
      iii. Imposition of a Tax
   f. Comparison of Pure Competition and Monopoly
   g. The Multiplant Firm
   h. Bilateral Monopoly

7. **Price Discrimination**
   a. Assumptions

b. The Model
c. Effects of Price Discrimination
d. Price Discrimination and Elasticity of Demand
e. Price Discrimination and the Existence of the Industry
f. Government-Regulated Monopoly

8. Monopolistic Competition
a. Assumptions
b. Costs
c. Product Differentiation and the Demand Curve
d. The Concepts of the 'Industry' and the 'Group'
e. Equilibrium of the Firm
f. Critique
g. Comparison with Pure Competition

Section B: Classical Oligopoly

9. Noncollusive Oligopoly
a. Cournot's Doupoly Model
b. Bertrand's Duopoly Model
c. Chamberlin's Oligopoly Model
d. The 'Kinked-Demand' Model
e. Stackelberg's Duopoly Model

10. Collusive Oligopoly
a. Cartels
    i.   Cartels Aiming at Joint Profit Maximization
    ii. Market-Sharing Cartels
b. Price Leadership
    i.   The Model of the Low-Cost Price Leader
    ii.   The Model of the Dominant-Firm Price Leader
    iii. Critique of the Traditional Price Leadership Models
    iv.   Barometric Price Leadership
c. The Basing-Point Price System
    i.   The Single Basing-Point System
    ii. Multiple Basing-Point System

Section C: Average-Cost Pricing

11. A Critique of the Neoclassical Theory of the Firm: The Marginalist Controversy
   a. The Basic Assumptions of the Neoclassical Theory
   b. The Hall and Hitch Report and the 'Full-Cost' Pricing Principal
   c. Gordon's Attack on Marginalism
   d. In Defense of Marginalism

12. A Representative Model of Average-Cost Pricing
   a. Goals of the Firm
   b. Demand and Cost Schedules
   c. Price Determination: The 'Mark-Up' Rule
   d. Comparison with Pure Competition
   e. Predictions of Average-Cost Pricing Theory in Changing Market Conditions
   f. Critique of Average-Cost Pricing

Section D: Limit Pricing (Or Entry-Preventing Pricing)

13. Bain's Limit-Pricing Theory
   a. Bain's Model
   b. Barriers to New Competition
      i. Bain's Concepts of 'Competition' and 'Entry'
      ii. Barriers to Entry
   c. Summary of Bain's Empirical Findings
   d. Industry Equilibrium
   e. Some Comments

14. Recent Developments in the Theory of Limit Pricing
   a. The Model of Sylox-Labini
   b. The Model of Franco Modigliani
   c. The Model of Bhagwati
   d. The Model of Pashigian

Section E: Managerial Theories of the Firm

15. Baumol's Theory of Sales Revenue Maximization
    a.   Rationalization of the Sales Maximization Hypothesis
    b.   Interdependence and Oligopolistic Behavior
    c.   Baumol's Statis Models
    d.   Baumol's Dynamic Model
    e.   Empirical Evidence
    f.   Some Comments

16. Marri's Model of the Managerial Enterprise
    a.   Goals of the Firm
    b.   Constraints
    c.   The Model: Equilibrium of the Firm
    d.   Maximum Rate of Growth and Profits
    e.   Comparison with Baumol's Model
    f.   Comparison with a Profit Maximizer
    g.   Critique of Marri's Model

17. Williamson's Model of Managerial Discretion
    a.   The Managerial Utility Function
    b.   Basic Relationships and Definitions
    c.   The Model
        i.   A Simplified Model of Managerial Discretion
        ii.   The General Model of Managerial Discretion
    d.   Implications of the Model
    e.   Comparative Static Properties
    f.   Empirical Evidence

Section F: Behavior Theory of the Firm

18. The Behavioral Model of Cyert and March
    a.   The Firm as a Coalition of Groups with Conflicting Goals
    b.   The Process of Goal-Formation: The Concept of the 'Aspiration Level'
    c.   Goals of the Firm: Satisfying Behavior
    d.   Means for the Resolution of the Conflict
    e.   The Process of Decision-Making

Market Demand for a Factor
- The Supply of Labor in Perfectly Competitive Markets
  Supply of Labor by an Individual
  Market Supply of Labor
- The Determination of the Factor Price in Perfect Markets

ii. Factor Pricing in Imperfectly Competitive Markets
- Model A—Monopolistic Power in the Product Market
  Demand of the Firm for a Single Variable Factor
  Demand of the Firm for a Variable Factor when Several Factors are Used
  The Market Demand for and Supply of Labor
  Model B
- Model B—Monopsonistic Power in the Factor Market
- Model C—Bilateral Monopoly
- Model D—Competitive Buyer-Firm versus Monopoly Union

b. Elasticity of Factor Substitution, Technological Progress and Income Distribution
  i. Elasticity of Input Substitution and the Shares of Factors of Production
  ii. Technological Progress and Income Distribution

c. Some Additional Topics on Factor Pricing and Income Distribution
  i.   The Price of Fixed Factors: Rents and Quasi-Rents
  ii. Nonhomogeneous Factors and Wage Differentials
  iii. The 'Adding Up' Problem: 'Product Exhaustion' Theorems
  - Euler's Product Exhaustion Theorem
  - Clark-Wicksteed-Walras 'Product Exhaustion' Theorem

22. General Equilibrium Theory

- a. Interdependence in the Economy
- b. The Walrasian System
- c. Existence, Uniqueness, and Stability of an Equilibrium
- d. A Graphical Illustration and the Path to General Equilibrium
- e. A Graphical Treatment of the Two-Factor, Two Commodity, Two-Consumer General Equilibrium System (2 x 2 x 2 Model)
  - i. The Assumptions of the 2 x 2 x 2 Model
  - ii. Static Properties of a General Equilibrium State
    - Equilibrium of Production
    - Equilibrium of Consumption
    - Simultaneous Equilibrium of Production and Consumption
  - iii. General Equilibrium and the Allocation of Resources
  - iv. Prices of Commodities and Factors
  - v. Factor Ownership and Income Distribution
- f. Concluding Remarks
- g. Appendix to Chapter 22
- Section I Extension of the Simple General Equilibrium Model to any Number of Households, Commodities and Factors of Production
- Section II Some Comments on the Existence, Stability and Uniqueness of General Equilibrium
- Section III Money and General Equilibrium

23. Welfare Economics

- a. Criteria of Social Welfare
  - i. Growth of GNP as a Welfare Criterion
  - ii. Bentham's Criterion
  - iii. A 'Cardinalist' Criterion
  - iv. The Pareto-Optimality Criterion
  - v. The Kaldor-Hicks 'Compensation Criterion'
  - vi. The Bergson Criterion 'Social Welfare Function'
- b. Maximization of Social Welfare
  - i. Derivation of the Grand Utility Possibility Frontier

Appendix E
List of Topics Assumed to Have Been Covered in The Courses at Principles Level as Prerequisite to the Proposed Course on "Microeconomics with an Islamic Perspective"

Contents

A. Principles of Economics in the Conventional Framework
1. What is Economics
2. Microeconomics versus Macroeconomics
3. Basics of Demand and Supply
4. Market Equilibrium
5. Market Structure—Perfect Competition, Monopoly, Oligopoly, Monopolistic Competition
6. Market Failures
7. Factors of Production and Determination of Their Return
8. Measurement of Gross and Net National Product
9. National Income Accounts
10. Determination of National Income
11. Classical, Keynesian and Neo-Classical Approaches to the Microeconomics Framework of an Economy
12. Money and National Income Determination
13. Extension of the Basic Model of National Income Determination to Include International Trade
14. The Balance of Payments
15. Tariffs, Quotas and Free Trade

B. Islamic Economic Doctrine
16. Some Salient Features of the Islamic Economic System
17. The Concept of *Ḥalāl* and *Ḥarām* and Its Economic Implications
18. Islamic Norms Relating to Production, Consumption, Exchange and Distribution
19. The Concept of Ownership and Its Limits in an Islamic Framework

20. The Redistribution Mechanism in an Islamic Economy
21. The Concept *ribā*—Its Interpretations and Implications
22. Alternative Institutions to Interest-based Operations and Their Justification in the Shari'ah
23. Zakah and Its Economic Role: The Place of zakah in Islamic Fiscal Policy, Its Effects on Consumption, Saving, and Investment Activity
24. Institutions of *'ushr, kharāj, jizyah*, etc., as Sources of Public Revenue
25. The Economic Role of the State in an Islamic Economy

C. Fundamentals of Fiqh Relating to Economic Matters

26. Introduction to Some Simple Islamic Juristic Terms
    a. *Māl* (Property) and Its Kinds (Immovable, Movable, Valuable, and Unvaluable)
    b. Ownership, Complete Ownership, and Benefits of Ownership
27. Zakah: First Volume of *al Hidāyah* (p. 96-117)
28. *Bay'*: Third Volume of *al Hidāyah* (p. 21-86)
29. *al Mushārakah*
30. *al Muḍārabah*
31. *al Muzāra'ah*
32. *al Musāqāh*
33. *al Ijārah*
34. *al Wadī'ah*
35. *al 'Ariyah*
36. *al Hibah*

Prescribed Texts

1. Samuelson, P.A., and W.D. Nordhaus. *Economics* 12th Edition. New York: McGraw-Hill Book Co., 1985.
2. Mannan, M.A. *Islamic Economics—Theory and Practice*. Lahore: Sh. Mohammad Ashraf & Sons, 1970.
3. Afzal-ur-Rehman. *Economic Doctrines of Islam* Vol. I, II and III. Lahore: Islamic Publications Limited, 1980.

4. Siddiqi, N. *Islam Ka Nazriyae Milkyyat* Vols. I and II. (Urdu). Lahore: Islamic Publications Limited, 1968.

5. Marhenani. *Al-Hedaya.*

Recommended Books

1. Wonnacott, and R. Wonnacott. *Economics* 2nd Ed. New York: McGraw-Hill Book Co., 1982.

2. Brue, S.L., and D.R. Wentworth. *Economic Sciences: Theory in Today's World* 2nd Ed. Englewood Cliffs, N.J.: Prentice-Hall, 1980.

3. Shafie Mufie Muhammad. *Ma'ārif al Qur'an* 8 Volumes (Urdu *Tafsir*). Karachi: Idarah al Ma'aref, 1980.

4. No'mani, Muhammad Manzoor. *Ma'ārif al Hadith* Vols. 4 and 7 (Urdu). Karachi: Darul Asha'at.

5. Al Abadi, Abdussalam. *Nazriyah al Milkiyah.* Jordan, Amman: Maktabat al Aqsa.

6. Ibn Rushd. *Bidyat al Mujtahid.* Lahore.

7. Ibn Qudama. *Mughni.* Egypt.

8. Ibrahim, Ahmed. *Kitab al Mu'āmalāt al Māliyah.* Egypt.

9. Ramli. *Nihāyat al Muhtāj.*

10. Hamid, Hussain. *Al Madkhal al Fiqhi.* (*Nazriyat al A'qd*).

11. Assalusi, Ali Ahmad. *Mu'āmalāt al Banuk al Hadithah.*