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Market and Pricing Mechanism in Pre-classical Literature[1]

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Abstract

Western literature on the history of economic thought seldom pays attention to the contribution of scholars from the other regions on different economic issues, as if they have nothing to offer on the subject. The same happened when Schumpeter remarked "as regards the theory of the mechanism of pricing, there is very little to report before the middle of the eighteenth century". The fact is that considerable ideas on market and pricing mechanism existed long before this period. The paper analyzes the concept of market and pricing mechanism in pre-classical period as developed by the scholars of the West Asian region. In this connection the following thinkers have been chosen to discuss their ideas: Abu Yusuf (731-798 AD), Abu Hamid al-Ghazali (1058-1111 AD), Ibn Taimiyah (1263-1328 AD), and Ibn Khaldun (1332-1404 AD). It also compares their ideas with those of Western writers of that period. Views of the writers cited in this paper show that they had a clear notion of the working of the market. They were trying to grapple with other related issues also. This warrants reconsideration of Schumpeter's statement about the mechanism of pricing before the middle of the eighteenth century. Especially, the contribution of the East, Middle East, Far East and other regions to economic thought has to be rehabilitated in the science of economics for the sake of doctrinal continuity as well as objectivity.

Introduction.
The main objective of this paper is to study and analyze the concept of market and pricing mechanism in pre-classical period as developed by the scholars of the West Asian region. In spite of adjoining the West, their ideas at large remained unexplored. An attempt will be made to compare their ideas with those of Western writers of that period.

The reason to confine the study to the pre-classical period or before the middle of the eighteenth century is a statement by Joseph Schumpeter in his magnum opus. The History of Economic Analysis which the present writer could not verify due to contrary evidences to which he came across during his research work. According to Schumpeter, "as regards the theory of the mechanism of pricing, there is very little to report before the middle of the eighteenth century". This writer has an inclination that the scholars who were born in this region which led the world during and before the Middle Ages in science and civilization, philosophy and business, trade and industry, etc. and who transmitted Greek philosophy and ideas along with their own additions and traditions to the West, must have discussed and analyzed economic problems and issues faced by them, such as production, distribution, market formation, price determination, etc. Unfortunately, their ideas, at large remained unexplored. Due to enormous material on the subject we will be selective in our presentation and choose the following thinkers to discuss their ideas:

1. Abu Yusuf (731-798 AD)
2. Abu Hamid al-Ghazali (1058-1111 AD)
3. Ibn Taimiyah (1263-1328 AD)
4. Ibn Khaldun (1332-1404 AD)

Relying primarily on the original Arabic language sources, I hope to come up in this paper with certain findings which will be a modest contribution to the history of economic thought.

Concept of Pricing as Early as the eighth Century AD

Scholars writing prior to the medieval European scholastics, offered rather detailed and sophisticated discourse on market and pricing mechanism. The earliest record that I have been able to discover, of increase and decrease of production with respect to price changes, is in Abu Yusuf (731-798 AD). But instead of attempting any theoretical account of demand and supply and their
effect on prices, Abu Yusuf states: "There is no definite limit of cheapness and expensiveness that can be ascertained. It is a matter decided from heaven: the principle is unknown. Cheapness is not due to abundance of food, nor expensiveness due to scarcity. They are subject to the command and decision of God. Sometimes food is plentiful but still very dear and sometimes it is too little but it is cheap." In the above Abu Yusuf seems to be denying the common impression of a negative relationship between supply and price. It is in fact true that price does not depend on supply alone - equally important is the force of demand. Therefore, increasing or decreasing price is not necessarily related to decrease or increase in production. Insisting upon this point, Abu Yusuf says that there are some other reasons also but these he fails to mention for the sake of brevity. It remains to be explored whether Abu Yusuf or any of his contemporaries touched on these points.

The Process of Market Evolution as Seen by al-Ghazali
Abu Hamid al-Ghazali (1058-1111 AD) provides a surprisingly detailed discussion of the role and significance of voluntary trading activities and the emergence of markets based on demand and supply forces in determining prices and profits. For al-Ghazali, markets evolve as part of the "natural order" of things, an expression of the self-motivated desire to satisfy mutual economic needs. The depth and breadth of his insights becomes evident from the following:

"Perhaps farmers live where farming tools are not available. Blacksmiths and carpenters live where farming is lacking. So the farmer needs blacksmiths and carpenters, and they in turn need farmers. Naturally, each will want to satisfy his needs by giving up in exchange a portion of what he possesses. But it is also possible that when the carpenter wants food in exchange for tools, the farmer does not need the tools. Or when the farmers need tools, the carpenter does not need food. So such situations create problems. Therefore, pressures emerge leading to the creation of trading places where various tools can be kept for exchange and also warehouses where farmers' produce can be stored. Then customers come to obtain these goods and markets are established. Farmers bring produce to the markets and if they cannot readily sell or exchange what they possess, they sell them at a lower rate to the traders who in turn store the produce and sell to the buyers at a profit. That is true for all kinds of goods."

He is also explicit on regional trade:

"Then, such practices extend to various cities and countries. People travel to different places to obtain goods and food and transport them. People's economic affairs become organized into cities which may not have all the tools needed and into villages which may not have all the foodstuffs needed. People's needs and interests necessitate transportation. Then a class of traders who carry goods from one place to another emerges. The motive behind all these activities is the accumulation of profits, undoubtedly. These traders exhaust themselves by travelling to satisfy others' needs and to make profits and then these profits too are eaten by others."

Al-Ghazali, thus, clearly suggests the 'mutuality' of economic exchange, which necessitates specialization and division of labour with respect to regions and resources. Further he recognizes that trading activities add value to the goods by making them available at a useful place and time. Motivated by participants' self interest, exchange leads to the creation of profit-motivated middlemen, or traders. Though accumulation of wealth in this manner was not viewed as among the noblest activities in the prevailing environment, he recognizes it as essential to the proper functioning of a progressive economy. Moreover, while discussing the trading activities, he also mentions the need for safe and secure trading routes and remarks that the state should provide protection so that market can expand and the economy can grow. He shows a sound understanding of the interactions of demand and supply, as well as the role of profits as part of a divinely ordained scheme of things. He even provides a well-defined ethical code for the business community.

Demand, Supply, Prices and Profits. Though al-Ghazali does not discuss demand and supply in
modern terms, numerous passages from his works demonstrate considerable depth in this respect. He is referring to an upward-sloping supply curve when he says that "if the farmer does not get a buyer for his produce, then he sells at a very low price." His awareness of market forces is evident when concerning high food prices he suggests that the price should be induced down by reducing demand implying a leftward shift in the demand curve. He also seems to have some insights into the concept of price elasticity of demand as he remarks: "a cut in profit margin by price reduction will cause an increase in sales and thus in profits." He likewise recognizes "price-inelastic" demand, for he says that since food is a necessity, trading in food should be minimally motivated by profits, as exploitation through excessive prices and profits could occur, and that since profits represent an 'extra', they should be, in general, sought from non-necessities. Like other scholars of his era, al-Ghazali discusses price and profits more or less together, without clear reference to costs and revenues. While expressing some disdain, though not condemnation for profit seeking, he recognizes the motivations for, as well as sources of, profits. Profits are viewed as the return on risk and uncertainty, as "they (traders and businessmen) bear a lot of trouble in seeking profits and take risks and endanger lives in voyages." As indicated above, al-Ghazali is critical of "excessive profits". He insists that sellers should be guided by 'profits' of the 'ultimate' market, i.e. the Hereafter.

Market Mechanism as Conceived by Ibn Taimiyah

Ibn Taimiyah had a clear notion of the voluntary exchange, free-market economies, and how prices tended to be determined through the forces of demand and supply. He says: "Rise and fall in prices is not always due to injustice of some people. Sometimes its reason is deficiency in production or decline in import of the goods in demand. Thus, if the desires for the goods increase while its availability decreases, its price rises. On the other hand if availability of the goods increases and the desires for it decrease, the price declines. This scarcity and abundance may not be caused by the action of any people; it may be due to a cause not involving injustice, or sometimes it may involve injustice." This statement partly reflects a commonly held view at the time, that is, rising price is the result of injustice, or transgression, on the part of sellers or possibly the result of manipulation of the market. However, Ibn Taimiyah argues that there could be other factors. He states that rising or falling prices could be due to market pressures. Then he discusses some of the factors that influence demand and supply, and his insights, while not quite as elegant as one finds in contemporary texts, nevertheless, are remarkably profound for the era he represented. He mentions two sources of supply: domestic production and imports of the goods demanded. A change in supply is described as an increase or decrease in the availability (supply) of the goods. He describes demand for good in terms of 'desires for the good', suggesting 'taste' in contemporary terms, a key determinant of demand (another being 'income' which he did not mention explicitly).

The above quotation from Ibn Taimiyah clearly suggests what we now call 'shift' in demand and supply schedules. Thus, at a given price, demand increases and supply decreases, leading to a price rise. Or, conversely, at a given price, supply increases and demand decreases, leading to a price decline. Similarly, depending upon the extent of change in supply and/or demand, the change in price may be large, small, or zero. Various such possibilities seem to be implied in the above quotation. Elsewhere, he is more explicit: "If people are selling their goods according to commonly accepted manner without any injustice on their part and the price rises due to decrease of the commodity or due to increase in population, then this is due to God's doing." Here, Ibn Taimiyah suggests that the reason for price increase may be either a decrease in supply or an increase in population (number of buyers) - that is, an increase in market demand. Thus, a price increase due to reduced supply (leftward shift) or increase in demand (rightward shift) is described
as an 'act of Allah' – obviously, referring to the impersonal nature of the markets.

From the foregoing it is also obvious that Ibn Taimiyah distinguishes between two factors that may cause shifts in demand-supply schedules and thus affect the market price: automatic market pressures and sellers' transgression (i.e., due to hoarding). It might be noted also that while Ibn Taimiyah traces the effects of changes in demand and supply on market prices, he does not seem to identify the effect of higher or lower prices on quantity demanded or supplied (i.e., movements along the respective schedules). However, in his work *al-Hisbah*, he refers to an earlier jurist, saying that administrative setting of too low a price that leaves no profit results in a corruption of prices, hiding of goods (by sellers) and destruction of people's wealth. 19

Thus, he seems to be aware of a direct relationship between price and quantity supplied. Further, he is also pointing to the disincentive effects from 'administratively fixed' price which is too low (obviously relative to some 'normal' price), and which could reduce profits and encourage hoarding.

**Other Factors Affecting Market Demand and Supply.** Elsewhere, Ibn Taimiyah identifies some other determinants of demand (and supply) which can affect the market price - such as i) intensity and magnitude of demand, ii) relative scarcity or abundance of a good, iii) credit conditions, and iv) discount for cash payments. The following brief quotations are illustrative:

"People's desire is of different kinds and varies frequently. It varies according to the abundance or scarcity of the good demanded. A good is much more strongly desired, when it is scarce than when it is available in abundance. It varies also depending on the number of demanders. If number of persons demanding a commodity is large, its price goes up as against when their number is small.

"It is also affected by the strength and weakness of the need for the good and by the extent of the need, how great or small is the need for it. If the need is great and strong, the price will increase to an extent greater than if the need is small and weak.

"The price also varies according to the customer with whom exchange is taking place. If he is well-off and trustworthy in paying debts, a small price from him is acceptable to the seller which (price) would not be acceptable from one who is known for his insolvency, delay in payment or refusal of payment due."

In talking about the desirability of contracts, he says: "This is because the purpose of contracts is (reciprocal) possession by the two parties (to the contract). If the payer is capable of payment and is expected, to fulfill his promise, the objective of the contract is realized, with him in contrast to the case if he is not fully capable or faithful regarding his promise. The degrees of capability and faithfulness differ. This applies to the seller and the buyer. ... The price of what is available is lower than the price of what is not (physically) available. The same applies to the buyer who is sometimes able to pay at once as he has money, but sometimes he does not have (cash) and wants to borrow (in others to pay) or sell the commodity (to make payment). The price is lower in the former case."

20

An increase in the number of buyers causing an increase in price (other things being constant) is indeed well-recognized. However, the size of need as distinct from its intensity (both may be viewed as suggesting 'taste) refers to the commodity's place in the basket of goods desired by the buyer. If this interpretation is correct, Ibn Taimiyah has associated high price with intensity of need as well as the good's relative importance in the totality of a buyer's requirement.

Further, Ibn Taimiyah suggests the relevance of credit to sales. The above quotation implies that if credit transactions are common, the sellers must face uncertainties as to future payments (say, between a more versus less credit-worthy customer) when quoting prices. Further, he is also aware
that a seller might offer "discounts" for cash transactions. Clearly, Ibn Taimiyah's arguments not only demonstrate his awareness of the demand-supply forces, but also his concern with incentives, disincentives, uncertainties, and risks involved in market transactions. Both represent significant contributions to economic analysis, especially when one bears in mind the era during which Ibn Taimiyah was writing.

**Competitions and Imperfections in the Market.** It should be noted here that while Ibn Taimiyah never uses the term 'competition' (a concept that emerged much later in the evolution of economic thought), nor describes the conditions of perfect competition in contemporary jargon, it is clear that his awareness of the 'competitive marker' assumptions is unambiguous. Thus, he writes that to force people to sell objects which are not obligatory to sell, or restrict them from selling a permissible object, are injustice and therefore, unlawful. In contemporary terms this clearly refers to full freedom to enter or exit a market. Further, he is critical of collusion among buyers and sellers. Homogeneity and standardization of the product is advocated in his condemnation of adulteration of the product and of fraud and deception in its presentation for sale. He emphasizes knowledge of the markets and the commodity, as the contract of the sale and purchase depends on consent and 'consent requires knowledge and understanding'.

Ibn Taimiyah is against excessive regulation when market forces are free to work resulting into determination of a competitive price. With regard to market imperfections, he recommends that if sellers abstain (through hoarding) from selling their goods except at a higher price than the customary or 'normal' price and people need these goods, then they will be required to sell them at "the price of the equivalent". Incidentally, this concept is synonymous to what is also described as Just price. Further, if there are elements of monopoly (especially in the markets for food and other necessities), the state must intervene to ensure that monopoly power is restricted.

From the foregoing discussion it is obvious that Ibn Taimiyah had a clear perception of the well-behaved, orderly markets, in which knowledge, honesty, fairplay, and freedom of choice were the essential ingredients. Thus it is in this contextual background that one must appreciate and evaluate his analysis of the functioning of market and mechanism of pricing.

**Ibn Khaldun** on Market and Pricing

From the Muslim scholars who wrote on market and pricing, the last in our scheme of discussion is Ibn Khaldun (1332-1404) who has been mentioned by Schumpeter in two places in his *History of Economic Analysis* though not in context of his economic thought. In his famous work *Muqaddimah*, under the heading "Prices in Towns", he divides the goods into necessaries and luxuries. According to him, when a city expands and its population increases, prices of necessaries decrease comparatively and those of luxuries increase. The reason given by him is that the foodstuffs and similar commodities being the necessaries of life get the first and the foremost attention of every man and thus their supply increases: causing prices to fall. On the other hand, the production of luxuries and conveniences does not attract the attention of every one, while their demand increases due to changes in life patterns causing their prices to increase. In this way Ibn Khaldun gives a reasonable account of demand and supply and their effect on prices. He also notes the role of competition among the demanders and increasing cost of supply due to taxation and other kinds of duties in the town.

At other place, Ibn Khaldun describes the effect of increased or decreased supply on prices. He says: "When goods (brought from outside) are few and rare, their prices go up. On the other hand, when the country is near and the road is safe for traveling, there will be many to transport the goods. Thus, they will be found in large quantities and the price will go down."
The foregoing quotation shows that like Ibn Taimiyah, Ibn Khaldun also considers both demand and supply to be important in determination of prices. Ibn Khaldun then goes on to say that a moderate profit boosts trade, whereas very low profits discourage traders and artisans and very high profits decrease demand. Indeed, Ibn Khaldun goes beyond Ibn Taimiyah in his clear mention of the elements of competition and different costs of supply on which Ibn Taimiyah is not very explicit. After his statement of demand and supply, Ibn Khaldun cites examples of different goods and their supply in different countries and their high or low prices according to their availability. He merely makes these observations but does not prescribe any price control policy. He seems to be more concerned with the facts while Ibn Taimiyah is interested in policy issues. As we have seen, Ibn Taimiyah does not confine his analysis to discussing the effect of increase and decrease in demand and supply on prices, but he opposes fixation of any price as long as market forces work normally. In case of imperfection in the market or injustice on the part of suppliers he recommends price control.

Western Thinking on Market and Price Mechanism until Mid-Eighteenth Century

According to the historians of economic thought, the Greek philosophers, Aristotle and Plato could not present a theory of price formation by the operation of supply-demand mechanism in the market. Almost the same is the case with the famous scholastic thinker St. Thomas Aquinas, called the prince of the scholastics, whose thought influenced an epoch.

At the beginning of the paper we have noted Schumpeter's remark on the theory of the mechanism of pricing on the part of Western writers. He did not find much worth mentioning before the middle of the eighteenth century. He has also said there that, "The contributions of even the brightest lights, such as Barbon, Petty, Locke, do not amount to much, and vast majority of the Consultant Administrators and Pamphleteers of the seventeenth century were content with the kind of theory they found or could found in Pufendorf." It may be noted that Samuel Von Pufendorf (1632-94) was born three hundred years after Ibn Khaldun. We have no access to the works of Pufendorf whom Schumpeter held the leader of so many thinkers. The only reference to his contribution given by Schumpeter is as follows: "Distinguishing value in use and in exchange (or *pretium eminens*), he (Pufendorf) lets the latter be determined by the relative scarcity or abundance of goods and money. Market price then gravitates towards the costs that must normally be incurred in production".

This brief quotation on the substance of Pufendorf’s contribution is not sufficient for a critical examination or a comparison with that of Ibn Taimiyah or Ibn Khaldun. To say that value in exchange or price is determined by the relative scarcity or abundance of goods and money is more related to a quantity theory of money than the theory of the mechanism of pricing. And perhaps, that is what Schumpeter also meant, because Barbon, Petty, and Locke whom he mentioned in this connection were more concerned about the effect of money supply on prices than anything else. Credit for discovery of the quantity of money is generally given to a French jurist Jean Bodin (1530-96) who developed it in 1568 in a "Reply to Paradoxes or M. Maletroit". Although implied in this theory is the application of demand and supply analysis of money, it is a different subject.

Apart from Jean Bodin, Pufendorf, Barbon, Petty and Locke, there are other Western writers before the mid eighteenth century, who used the analysis of demand and supply to explain changes in price. Schumpeter does not mention them in connection of pricing mechanism but Barry Gordon, in his book *Economic Analysis before Adam Smith* mentions John Nider (1380-1438), Navarrus (1493-1586), Luis Molina (1536-1600) and Lessius (1554-1632) and gives a brief account of each. Stating Nider’s view he says, "Moreover, by as much as a great number of men have need of a commodity and desire to possess it, whereas the available supply of it is less, by so much it is more likely to be
estimated and sold at a higher price.” Gordon writes about Navarrus that “He was an opponent of a system of stationary price fixation arguing that when the goods were abundant, it was quite unnecessary and that when they were scarce, the system might do the welfare of the community more harm than good ... A new emphasis was lent to the operation of supply determinants and the idea of ‘a market’ was bought into sharper focus.” According to Gordon, Molina explained, "If, for example, goods are supplied at retail in small quantities, they will command a higher unit price than in bulk. He is the first among Scholastics to use the word competition.” He spoke about “natural prices” as the price which is formed by the market forces. No private monopoly or prices fixing should interfere with the market. And about the Belgian Jesuit, Lessius, Gordon writes, “Not only variation in supply conditions, but a wide range of other forces, quite properly, influence the making of prices. Among the factors he lists as relevant are following: "... the goods themselves, and their abundance or scarcity; the need for them and their usefulness; the sellers and their labour, expenses, risk suffered in obtaining the goods in transporting and storing them; the consumers, and whether there are few or many, and whether money is plentiful or scarce.”

Conclusion
From the survey of available Western literature on the history of economic thought, it appears that these writers seldom pay attention to the contribution of scholars from the other regions on different economic issues, as if they have nothing to offer on the subject.

However, from the foregoing discussion it is obvious that considerable ideas on market and pricing mechanism existed long before the mid-eighteenth century. In fact the views of writers cited in this paper show that they had a clear notion of the working of the market and were trying to grapple with other related issues also. This warrants reconsideration of Schumpeter’s statement about the mechanism of pricing quoted at the beginning of this paper. Especially, the contribution of the East, Middle East, Far East and other regions to economic thought has to be rehabilitated in the science of economics for the sake of doctrinal continuity as well as objectivity.

It is interesting to note that all the Western writers noted above came after the scholars of the West Asia, whose majority belonged to the period referred by Schumpeter as the “great gap”, during which nothing of relevance to economics was written. Again a controversial thesis of Schumpeter’s History of economic analysis, which needs to be reviewed.

Endnotes
3. Abu Yusuf, the chief justice in the court of caliph Harun al-Rashid, wrote the first book on taxation system of Islam, entitled Kitab al-Kharaj. It was written at the request of the caliph to be used by him as manual on taxation.
5. Ibid.
8. Ibid.
10. Ibid. vol. 3. p. 227.
11. Ibid. p. 87.
12. Ibid. vol. 2. p. 80.
13. Ibid. p. 73.
15. Ibid. vol. 2. pp. 75-76.84.
16. Taqi al-Din Ahmad bin Abd al-Halim, known as Ibn Taimiyah was born at Harran (presently in Turkey) in 1263 and died in Damascus in 1328. His works al-Hisbah and al-Siyasah al-Shar'iyah mainly consists of his economic ideas. He stands out distinctively as one among at least 35-40 prominent Arab scholars, who wrote on a variety of specific economic issues.
19. Ibid. p. 41.
22. Ibid. p. 25.
25. Ibid. p. 25.
27. Ibn Khaldun is called among the fathers of economic science (Boulakia. J. David, Ibn Khaldun: A Fourteenth Century Economist-, Journal of Political Economy. vol. 39. No. 5. September 1971 pp. 1105-1118) was born in Tunis in 1332 and died at Cairo in 1406. His brilliant work al- Muqaddimah (An Introduction to History) considered as the most sublime and intellectual achievement of the Middle ages, is a treasury of many sciences, like history, psychology, geography, economics, etc.
30. Ibid. p. 338.
33. St. Thomas Aquinas (1225-74) tried to synthesize the teaching of Christianity and the philosophy of Aristotle. His most famous work is Summa Theologica in three parts. Nearly everything of importance that he has to say about social and political matters is found in the second part. Every writer on early history of economic thought refers to him.
37. Schumpeter. op. cit. p. 305.
39. Barbon is known for his work, Discourse on Trade, 1690.
40. William Petty (1623-87) was a self-made man. His is one of the greatest names in the history of economics. Collection of his work has been published under the title The Economic Writing of Sir William Petty.
41. John Locke (1632-1704), a product of Oxford, as an economist he made significant contribution. A first and incomplete collection of his works appeared in 1714.
44. Ibid, p. 239.
45. Ibid. p. 240.
47. Ibid. p. 269.

[1] This paper was presented to 74th Conference of the Indian Economic Association, held at Anantapur (A.P., India) during Dec. 28-31, 1991. Dr Islahi is Reader in the Department of Economics, Aligarh Muslim University, Aligarh.