Economic Thought of Ibn Khaldûn (1332–1406 A. D.)

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August 2006

1 Introduction

Economics as a science has always been influenced by the world view and norms of the society along with the affect contributed by economic conditions, social structure, and the political factors of the time. Its evolution and points of focus have shifted several times. In this process many economic concepts have been discovered, forgotten, and then rediscovered. One such scholar whose economic ideas were lost in the history and then analogous concepts rediscovered centuries after him was Abu Zayd Abd-ar-Rahman **Ibn Khaldûn** [1332–1406 A. D.] Ibn Khaldûn wrote his voluminous book on history, Titled; Kitâb al-'Ibr wa-dîwân al-mubtada' wa-l-khabar fi ayyam-il 'arab wa-l-'ajam wa-l-barbar wa-man 'asarahum min dhawi-sultan al-akbar. As an introduction to it he wrote the Muqaddimah which is now considered to be the first book on philosophy of history (historiography) and sociology. The Muqaddimah deals with the methodology of studying history and the causes of rise and fall of nations. In explaining his position, he brings in economics, sociology, religion, and politics all interwoven to form a coherent system of social dynamics. Discussions of economic phenomenon in his Muqaddimah enable us to analyze his economic thought as part of the larger literature that existed in his time and place.

Using the *Muqaddimah*, we have explored some of his economic thoughts in this paper and tried to find out his concept of the working of an economy. Earlier work on Ibn Khaldûn include El-Alfi [1968] and Boulakia [1971] from which we have benefitted. Moreover, we have tried to look for the market structure envisaged by Ibn Khaldûn and the role of government in shaping it. We have also found a theory of inter-industry wage differential in his writings.

To describe economic thought of Ibn Khaldûn in the language of contemporary economics we divide his thoughts under the headings of Supply, Demand, Market Mechanism and Price Determination, Market Structure, Theory of Wage Differential, and Role of Government which form the remainder sections of this paper. Lastly, we note the conclusions ¹.

^{*}IRTI, Islamic Development Bank, P.O. Box 9201, Jeddah 21413, Saudi Arabia. This is a slightly revised version of an earlier paper first written in 1990 while studying at the Department of Economics, University of Pennsylvania. I would like to thank Professors Miechael Mandler (then at U Penn), Sayyid Tahir (then at IIU Malaysia), Khalid Nainar (then at Mc Master University), and Umer Chapra (now at IRTI, IDB) for helpful comments and improvement in exposition.

¹We have in general used Rosenthal's [1958] English translation of the *Muqaddimah* for quotations. However, at some occasions if we have used a different translation by someone else then it has been indicated in a footnote. In order to adopt a uniform system of references while using various translations the chapter and page numbers

2 Supply

2.1 Production

Ibn Khaldûn mentions two sources of output in an economy, (i) domestic production, (ii) imports from abroad. He acknowledges nature, capital, and labor as factors of production IV205. Labor is an essential input of production technology in his economy, for nothing can be produced without it. The capital which we see as productive cannot generate any thing by itself unless it is complemented by labor. Moreover, capital itself is a product of labor excluding natural resources. Thus, among factors of production, human labor is noted as a fundamental factor. "Profit [Production] is the value realized from human labor" IV272. Nature as factor of production: "[Man] obtains [Production] through no efforts of his own, as, for instance, through rain that makes the fields thrive, and similar things. However, these things are only contributory. His own effort must be combined with them" [Ibn Khaldûn Ch. V, p. 273]. "Human labor is necessary for every profit and capital accumulation. When [the source of production] is work as such, as for instance [the exercise of] a craft, this is obvious. When the source of gain is animals, plants or minerals, human labor is still necessary, Without [human labor], no gain will be obtained, and there will be no useful [result]" [Ibn Khaldûn Ch. V, p. 274].

Thus Ibn Khaldûn stressed importance of labor while acknowledging the existence of other factors of production. His production technology can then be described as being of following type.

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Y = f(L, Other factors), when L > 0
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Y = 0, when L = 0.

Ibn Khaldûn's emphasis on human labor has been misinterpreted by some authors (see Boulakia [1971], and Oweiss [1988]) who conclude that Ibn Khaldûn advocated the labor theory of value. We will see in a later section of this paper while discussing the market and prices, how Ibn Khaldûn talks about prices as being the determinant of value. It is important to note that the labor theory of value implies labor is the fundamental factor of production, but the statement that labor is the primary factor of production does not necessary imply labor theory of value. It is only the valuation of output in terms of units of labor input that is labelled as the labor theory of value.

2.2 Organization of production and division of labor

The division of labor plays a very important role in Khaldûn's economy for growth and development. It is beyond doubt that Ibn Khaldûn recognized and gave an important role to division of labor in his economy centuries before Adam Smith re-discovered the same concept. Ibn Khaldûn maintains that "civilization and its well-being as well as business propensity depend on productivity and people's effort in all directions in their own interest and profit" [Ibn Khaldûn Ch. II, p. 93-94]. The way in which the productive powers of labor can be utilized is through cooperation, for "through co-operation, the needs of persons, many times greater than their own [number] can be satisfied" I69. He further emphasized the need for cooperative activity by giving an example that although a basic need like food is required for human subsistence, an individual person cannot obtain it alone. It is "obtained only after much preparation such as grinding, kneading, and baking. Each of these three operations requires utensils and tools that can be provided only with

referred to are those of the original *Muqaddimah* and not that of the translation by Rosenthal [1958]. Rosenthal's translation uses its own pagination and also provides the pagination of the original *Muqaddimah* in the margin.

the help of several crafts, such as the crafts of the blacksmith, the carpenter, and the porter" I69. Cooperation requires division of labor. His notion of cooperation is not necessarily a joint effort, rather a functional cooperation. To make it clear following quotation is a good example. Ibn Khaldûn writes:

"The individual human being cannot by himself obtain all the necessities of life. All human beings must co-operate to that end in their civilization. But what is obtained through the co-operation of a group of human beings satisfies the need of a number many times greater [than themselves]. For instance, no one, by himself, can obtain the share of the wheat he needs for food. But when six or ten persons, including a smith and a carpenter to make the tools, and others who are in charge of the oxen, the plowing of the soil, the harvesting of the ripe grain, and all the other agricultural activities, undertake to obtain their food and work toward that purpose either separately or collectively and thus obtain through their labor a certain amount of food, [that amount] will be food for a number of people many times their own. The combined labor produces more than the needs and necessities of the workers" [Ibn Khaldûn Ch. IV, p. 235] (emphasis added).

It is clear that Ibn Khaldûn is expounding the concept of division of labor. The italicized words "work toward that purpose either separately or collectively," clarifies, that to Ibn Khaldûn cooperation does not necessarily mean joint effort but rather functional cooperation. He writes under the heading of "division of labor, specialization, and diversification of professions" [Ibn Khaldûn IV:286] that;

"Sedentary culture occurs in the nations when much diversity develops among its various subdivisions. It is thus on the same level as craft. Each particular kind of craft needs persons to be in charge of it and skilled in it. The more numerous the various subdivisions of a craft are, the larger the number of the people who have to practice that craft. The particular group producing that craft is colored by it. As the days follow one upon the other, and one professional coloring comes after the other, the craftsmen become experienced in their various crafts and skilled in the knowledge of them. Long periods of time and the repetition of similar experiences add to establishing the crafts and to causing them to be firmly rooted." IV250.

Ibn Khaldûn provides an answer to the question of what brings about division of labor into existence. His explanation rests on the following two premises:

- (i) strong dynasty or political stability which provides protection enhancing the mobility of people in that country to relocate amongst regions and occupations to further production.
- (ii) man's ability to think.

Thus his explanation is that the sedentary culture is started by existence of a strong political power (ruler) which can provide security and an environment to live peacefully. Such a rule attracts people to those communities and cities and countries are formed. Larger the number of people in the city, the greater will be the demand for goods and services, which leads to an increase in the supply through increased productive activity and capital accumulation in the society. Incomes of people rise in that community, therefore more new people get attracted to migrate to that community. This increases the scope of economic activity and hence makes division of labor a feasible possibility in the sense that each person can find enough opportunity to make a living out of his specialized work even after the division of labor. It is then human ability to think, the distinguishing factor in man from other animals, which allows realization of this advantage.

2.3 Limits on division of labor

The scope of the division of labor, Ibn Khaldûn's writings suggest, is limited by the size of city, degree of civilization, and market demand [El-Alfi 1968], which are same as Smith's conclusion that division of labor is limited by the extent of the market. Ibn Khaldûn wrote: "The activities required for necessities of life, such as those of tailors, smiths, carpenters, and similar occupations, exist in every city. But activities required for luxury customs and conditions exist only in cities of a highly developed culture, that have taken to luxury customs and sedentary culture. Among such activities are those of glassblowers, goldsmiths, perfumers ... [These activities] exist in different degrees. In accordance with increase in the customs of sedentary culture and the requirements of luxury conditions, there originate crafts [especially] for this kind [of luxury requirements]. [The crafts of this] kind will, thus, exist in particular city, but not in others" [Ibn Khaldûn Ch. IV, p. 266].

Ibn Khaldûn does not stop at asserting that the division of labor is limited by the extent of domestic market, rather he includes international markets as well. He provides a reason for international trade based upon externalities of division of labor and diversification in production, and hinted also to trade based on technological differences. He said "certain cities have craft that others lack" [Ibn Khaldûn Ch. IV, p. 265]. Furthermore he says; "If the labor of the inhabitants of a city or a region is diverted towards the production of necessities and needs of those inhabitants, only a small fraction of that labor will suffice. All the labor is more than that is needed to satisfy necessities. Consequently, it is spent to provide the conditions and customs of luxury, and sometimes to produce the needs of the inhabitants of other cities, exporting it through exchange or sale" [Ibn Khaldûn Ch. IV, p. 235] ².

3 Demand

Ibn Khaldûn discussed the effects of demand on prices, division of labor, and growth etc. but we do not find explicit mention of the allocation role of prices in the goods market ³. But this is not to say that he was not aware of that phenomenon because he wrote about the allocation role of wages in the labor market which is the mirror image of allocation role of prices in the goods market. We will discuss it under the heading of "Wages". Moreover he has discussed the phenomenon showing his awareness of some *notion* of elasticity, that the price elasticity of necessities is lower than the price elasticity of demand for luxuries. His term for this concept is *compulsion*.

"People need food, and that the money they spend on it, they are forced to spend. ...; they had to spend it and had no possible excuse, which is a sort of compulsion" V299-300.

"For things that are traded, other than foodstuffs and victuals, people have no compelling need. It is merely the diversification of *desires* that calls their attention to them. On such, they spend their money voluntarily and willingly" V300. (emphasis added)

²Translation done by El-Alfi 1968, p.58-59.

³That is movement along individual demand curve or how change in price effects quantity demanded.

El-Alfi [1968, p. 92] has used the above passages to show that Ibn Khaldûn's individual demand was similar to Adam Smith's "effectual demand" and that the individual's demand is a function of his income and desire (taste). An interesting and important feature of Ibn Khaldûn's economy is that higher prosperity results in diversification of demand. Conveniences and luxury items are added to the consumption basket.

"Then, when a city has a highly developed, abundant civilization and is full of luxuries, there is a very large demand for those conveniences and for having as many of them as a person can expect in view of his situation" IV240.

This means that as income rises to higher levels, not only the quantity demanded of a good increases but the demand for larger number of differentiated goods (variety) develops.

Ibn Khaldûn implicitly recognized market demand as being sum of individual demands so the price elasticity of market demand is generally higher than individual demand. This is reflected when he describes what type of goods an intelligent trader would carry for sale in a foreign country. He says that "the merchant who knows his business will travel only with such goods as are generally needed by rich and poor, rulers and commoners alike. [General need] makes for a large demand for his goods. If he restricts his goods to those needed only by a few [people], it may be impossible for him to sell them, since these few may for some reason find it difficult to buy them. Then, his business would slump, and he would make no profit. . . . , because it makes the difference between selling his goods and not selling them" V298

He also recognized the important role of government expenditure in the formation of aggregate demand. He wrote;

"There is another secret to be understood in this connection. That is, that it is the ruling dynasty that demands crafts and their improvement. It causes the demand for them and makes them desirable. Crafts not in demand with the dynasty may be in demand with the other inhabitants of a city. However, that would not be the same thing, for the dynasty is the biggest market. There, every thing can be marketed....On the other hand, the demand of the common people for a particular craft is not general, nor is the business that the common people can provide of large volume" V312.

4 Market Mechanism and Price Determination

We can divide Ibn Khaldûn's economy into two broad sectors; the private sector and the the government. He then assumed implicitly market for goods, labor market, and market for land. There is no money market. Business is financed by either the partnership contract or the agency contract, lending on ex-ante fixed rate of return (interest) is prohibited by religion.

4.1 Prices in goods market

Ibn Khaldûn shows that prices are determined in the market by the interplay of both supply and demand. To show how he argued for changes in supply affecting the price, the following passage is a good example.

"When goods are few and rare, there prices go up. On the other hand, when the country is near and the road safe for traveling, there will be many to transport the goods. Thus, they will be found in large quantities, and the prices will go down" V298.

Elsewhere he explains why prices of foodstuffs are generally lower in populated cities compared to less populated small towns despite its large demand in populous cities. He cites the existence of large reservoirs of such necessities in cities as being the principal determinant of lower prices in cities. These reservoirs exist because there are incentives to store, as everyone knows that everyone else will demand foodstuff and population is large so people produce more and acquire more as inventory.

"The reason for this is that the different kinds of grains belong among the necessary foodstuffs. The demand for them, therefore, is very large. Nobody would neglect [to provide for] his own food or that of his establishment for a month or a year. Every body who produces food for himself has a great surplus beyond his own and his family's needs. This surplus is able to satisfy the needs of many of the inhabitants of that particular city. No doubt, then, the inhabitants of a city have more food than they need. Consequently, the price of food is low, as a rule, except when misfortunes occur due to celestial conditions that may affect [the supply of] food in certain years" 4 IV240.

Demand determined prices are also explained in the case of luxury goods. He describes that in the prosperous state of the economy, which comes after the civilization has grown, people with resources to waste are ready to pay exorbitant prices for diverse luxury goods. The craftsmen of those goods are few therefore supply of these goods limited. Competition among rich to acquire those rare commodities bids up their prices. He says;

"This results in a very great shortage of such things. Many will bid for them, but they will be in short supply. They will be needed for many purposes, and prosperous people used to luxuries will pay exorbitant prices for them, because they need them more than others. Thus, as one can see, prices come to be high" IV240.

Ibn Khaldûn skips between the description of long-run price and short-run price without explicitly mentioning his transition. This makes his analysis difficult and confusing in some sections. El-Alfi [1968] has tried to separate long-run prices from short-run prices in *Muqaddimah* and came up with the conclusion that in addition to short-run market price Ibn Khaldûn had a concept of long-run market price which he mentions as *moderate price*, around which the short-run price fluctuates. This moderate price is required for the growth of the economy. El-Alfi [1968] concludes further that "Khaldûn's argument in respect to demand and supply in the long-run is similar to that of Adam Smith: demand governs the quantity supplied while supply itself determines the price" [El-Alfi 1968, p.101].

4.2 Wages

In Ibn Khaldûn's economy wages are determined in the labor market which is affected by the conditions in the goods and services market. Ibn Khaldûn described the process of wage deter-

⁴This also shows another aspect of supply function. Supply = f(factor prices, expected demand).

mination by the supply and demand process. More importantly, he explicitly stated that the demand for labor is a derived demand.

"If a particular craft is in demand and there are buyers for it, [that] craft, then, corresponds to a type of goods that is in great demand and imported for sale" V311.

Aggregate supply of labor in his model depends upon the size of population as well as income. Population grows not only by biological reproduction but also by migration from surroundings as a result of higher average income levels, facilities, protection, and political stability in the city. Individual agent's labor supply in any industry is a function of the wage rate in that industry and the individual's wealth or income from other sources. He used work-leisure choice in his analysis and even hinted at the case of backward bending supply curve for labor. This point has also been noted by Spengler [1964, p. 303]. Large population implies greater possibility of division of labor and hence increased output. But population cannot increase without limit. Capacity of the city and dynasty cycles are major limiting factors on the size of the population. Every city has a potential optimal population size. When population grows above it, streets become narrow, buildings start becoming old, deteriorate III124-126. This makes the ground ready for spread of pestilences. City dwellers become less interested in agriculture which is left to few III124-126. Because of this neglect as compared to the needs of large population, famines occur. Pestilences spread out and the population starts to decline. Another cause of decline in population is through mass displacement of population due to dynasty cycles. One dynasty gradually weakening is overthrown by another dynasty.

As one can see that Ibn Khaldûn described two different modes of decrease in output and ruin of city. One is the club good analogy, that fixed city size (land and capital) leading to a lowering of per-capita goods and services after the optimum size of the city has reached. Another mode is when population itself starts to decline causing the output to decline. It is clear that the output increases at the increasing rate in the beginning until the optimal capacity is reached. From then on when the crowding out of city's resources start (i.e. streets become narrow, water shortages, etc. ,) output is still increasing but at a decreasing rate until the actual decline in population starts (due to dynasty cycles, political turmoil, and spread of pestilences etc. ,) then the output also starts to decline.

Market determined wage rates play important role in allocation of labor force in various production processes.

"If a particular craft is in demand and there are buyers for it, [that] craft, then, corresponds to a type of goods that is in great demand and imported for sale. People in towns, therefore, are eager to learn [that particular] craft, in order to make a living through it. On the other hand if a particular craft is not in demand, there are no buyers for it, and no one is interested in learning it. As a result, [the craft] is destined to be left alone and disappears because of neglect" V311–312.

4.3 Rent

Land is a productive factor, its price is determined by the amount of development work required to make it productive [see Ibn Khaldûn Ch. IV, p. 242] and different kinds of externalities will also affect its price (see El-Alfi [1968], p. 80–81, also see Ibn Khaldûn Ch. III, p. 125; Ch. IV, p. 242), for example, natural factors such as rain, climate, and geographical location etc. Ibn

Khaldûn mentions that no one cultivates inferior quality land unless constrained by unavailability of better land. This can be due to socio-political or economic reasons. Cost of agricultural labor and expenditure on material such as fertilizers etc. to improve the quality of land also enter into the price of the produce.

"The cost of agricultural labor also enters into the price of foodstuffs. It is reflected in these prices. This has happened in Spain at the present time. The Christians pushed the Muslims back to the seacoast and the rugged territory there, where [the soil] is poor for the cultivation of grain and little suited for [the growth of] vegetables. Thus, [the Muslims] had to treat the fields and tracts of land, in order to improve the plants and agriculture there. This treatment required expensive labor [products] and materials, such as fertilizer and other things that had to be produced. Thus, their agricultural activities required considerable expenditures. They calculated these expenditures in fixing their prices, and thus Spain has become an especially expensive region, ..." IV242.

In the above mentioned passage Ibn Khaldûn's notion of rent is not monopoly rent of Smith [see Smith p. 249] but is very close to Ricardo's rent. The 'rent' (additional cost of cultivating inferior land) enters into the price of output in similar way as wages and profit enter into its composition. That is output prices are affected by 'rent'. This is again different from Smith's assertion that "rent, it is to be observed, therefore, enters into the composition of price of commodities in a different way from wages and profit. High or low wages and profit are the cause of high or low price; high or low rent is the effect of it " [Smith p. 249], rather Ibn Khaldûn's notion of rent is more closer to Ricardo and later economists. Ibn Khaldûn also analyses another externality – political stability and instability – that will affect the prices in real estate market. At the time of political turmoil militia vanishes, and there is no protection. "At that time, [the possession of] real estate does not make a person happy, because it is of little use in the general upheaval. [Real estate] values fall" IV248. After some time when the city has regained its rigor and new dynasty stabilized "their value increases" IV248.

4.4 Profit

Ibn Khaldûn speaks of profits as being a residual reward to entrepreneurial activity. It results from moving the object of sale through time and space and undertaking the business risk in doing so.

"It should be known that commerce means the attempts to make a profit by increasing capital, through buying goods at a low price and selling them at a high price, The accrued [amount] is called "profit" [ribh].

The attempt to make such a profit may be undertaken by storing goods and holding them until the market has fluctuated from low prices to high prices. Or, the merchant may transport his goods to another country where they are more in demand than in his own, where he bought them" V297.

5 Market Structure

The market structure is not fixed, it changes as the Ibn Khaldûn's economy evolves overtime. Ibn Khaldûn did not characterize the market structure as competitive or monopolistic while discussing market prices and allocation. But his description of evolution of production structure towards division of labor and specialization, and movement of demand composition towards larger variety suggest changing market structure. In the beginning of formation of city, economies of scale in production are created and the types of goods in demand are restricted to those which are necessities so the market structure is monopolistic with small variety of goods. In the intermediate stage when the division of labor is exploited to a certain extent and demand is large but still restricted to a small variety of goods with large number of buyers and sellers, markets are competitive. In the third phase, when people have accumulated large sums of money and wealth, demand for greater variety and quality develops. This is catered by further specialization and division of labor in production. This results in fewer professionals in production of each variety. The professionals are few because; (i) each profession requires long time and effort to master V315, and (ii) people are affluent and they prefer leisure more than income III301, IV241. Thus market structure in each variety of good is monopolistic although total number of buyers and sellers in the economy as a whole are large.

6 Wage Differential in Professions

The reasoning in the quotation form V311-312 given above under the section of "wages" of this paper implies that in equilibrium, allocation of labor will lead to equalization of nominal wages across industries. But generally we do not see such an equalization of nominal wages. Ibn Khaldûn discussed the reasons for wage differential across professions or industries. One reason he mentions V295 is that sometimes the need for some good becomes more urgent which causes an increase in the level of demand for labor in that industry and so the wage differential is created. This reason is analogous to saying that temporary demand shocks in some industries cause the deviations of wages from long-run equilibrium and hence wage differential appears. Secondly, the nature of profession itself also matters. If non-pecuniary gains such as respect, prestige, or any other benefits are greater in some professions, then nominal wages in those professions are lower than the nominal wages in other professions of equal need. He indicated this while discussing why persons who are in charge of offices dealing with religious matters, such as judge, mufti, teacher etc., are not generally wealthy. The reason is low nominal wages offered to them by the ruler and accepted by them "..., because the things [the religious officials] have to offer are so noble, they feel superior to the people and are proud of themselves. Therefore, they are not obsequious to persons of rank, in order to obtain something to improve their sustenance" V295–296. Thirdly, learning and perfection in a job is acquired through a lengthy process of practice over time and once one craft is mastered it is difficult to master another (see V306 V315 IV250). This friction in inter-craft mobility of workers due to time cost of learning and the habit formation is also responsible for wage differential.

7 Role of Prices in Economic Growth

Prices play an important role for economic growth in Ibn Khaldûn's economy. When prices are too low consistently then it does not pay for the profit of suppliers, incentives to accumulate and invest weaken. If this situation persists for long time, for some reason, then suppliers being not able to cover the cost drop out of business and business in that industry slumps.

"When the prices of any type of goods, victuals, clothing material, or any thing else [that may bring in] capital, remain low and the merchant cannot profit from any fluctuation of the market affecting these things, his profit and gain stop if the situation goes on for a long period. Business in this particular line [of good] slumps, and the merchant has nothing but trouble. No [trading] will be done, and merchants lose their capital" V301.

This statement is applicable in general, but if we restrict to the case of perfect competition then the situation can be described by the typical textbook diagram of ATC, AVC, and MC for a firm. When prices are below breakeven point firms will just survive in the market making loss on a portion of AFC and waiting for a favorable fluctuation in prices. But when low price situation persists and there is no expectation of price rise in the near future or price go below AVC, firms shut down.

This is only a static analysis and a part of the story. In fact slump in business in one industry will effect the whole chain of industries connected with it. "This may be exemplified in the instance of grain. While it remains cheap, the condition of all farmers and grain producers who have to do with any of the various stages of grain production is adversely affected, the profit they make being small, insignificant, or non-existent. They can not increase their capital, or they find [the increase] to be small. They have to spend their capital. Their condition is adversely affected, and they are reduced to poverty and indigence. This then, in turn, affects the condition of millers, bakers, and all other occupations that are connected with grain from the time it was sown to the time it can be eaten" V301. Also "[when the prices of agricultural products are low] the income from taxation is small" V301, this affects government expenditure. Because of such economy-wide effects it is probable that same argument is applicable for low levels of general price level if the slump industry comprises substantial part of aggregate economy. Furthermore, he writes, "the same applies to prices that are too high. Occasionally and rarely, they bring an increase in capital as a result of hoarding [some particular merchandise] and the large profit that goes with [hoarding]" V302. He did not elaborate on the reasons for why persistent high prices do not contribute to capital accumulation. He says; "but it is medium prices and rapid fluctuations of the market that provide people with their livelihood and profit" V302. This can serve as an interesting explanation of investment function and business cycles.

8 Role of Government

8.1 Government expenditure

As mentioned earlier in the section 3 of the paper that government expenditure is a part of aggregate demand in Ibn Khaldûn's economy. Therefore, it can be used as an instrument for promoting aggregate demand.

He seems to be aware of a circular flow depiction of the economy. He showed how a curtailment of government expenditure or inefficient use of it will affect the economy and will in turn affect the revenues. This he discussed under the heading "Curtailment of allowances given by the ruler implies curtailment of tax revenue" III92. He wrote;

"The reason for this is that dynasty and government serve as the world's greatest market place, providing the substance of civilization. Now, if the ruler holds on to property and revenue, or they are lost or not properly used by him, then the property in the possession of the ruler's entourage will be small. The gifts which they, in their turn, had been used to give to their entourage and people, stop, and all their expenditures are cut down. They constitute the greatest number of people [who make expenditures], and their expenditures provide more of the substance of trade than [the expenditures of] any other [group of people]. Thus [when they stop spending], business slumps and commercial profits decline because of the shortage of capital. Revenues from the land tax decrease, because the land tax and taxation [in general] depend on cultural activity, commercial transactions, business prosperity, and the people's demand for gain and profit. Furthermore, money circulates between subjects and ruler, moving back and forth. Now, if the ruler keeps it to himself, it is lost to the subjects" III92-93.

While he advocates government expenditure to keep the economy in motion he discourages government involvement in business because it will reduce the incentives of investors and will cause crowding out of private investment sector. His notion of crowding out effect is as follows;

"Sometimes, the ruler himself may engage in commerce and agriculture, from desire to increase [his] revenues. He sees that merchants and farmers make [great] profits and have plenty of property. [He sees] that their gains correspond to the capital they invest. Therefore, he starts to acquire livestock and fields in order to cultivate them for profit, purchase goods, and [enter business and] expose himself to fluctuation of the market. He thinks that this will improve [his] revenues and increase [his] profits.

However, this is a great error. It causes harm to the subjects in many ways. First, farmers and merchants will find it difficult to buy livestock and merchandise and to procure cheaply the things that belong to [farming and commerce]. The subjects have [all] the same or approximately the same amount of wealth. Competition between them already exhausts, or comes close to exhausting, their financial resources. Now, when the ruler, who has so much more money than they, competes with them, scarcely a single one of them will [any longer] be able to obtain the things he wants, and everybody will become worried and unhappy" III84.

The first reason, rise in prices of investment goods, is given in the above quotation. In the subsequent paragraphs which are not quoted here III84-85 he describes two more reasons;

• Ruler has the power to force people. He can buy cheap and sell them back at higher prices both fixed by him. He can exploit his position to create arbitrage opportunities for himself by the repetitive process of forced buying and selling. This will undermine the incentives of private agents for any economic activity and they become impoverished.

• Individual investors like farmers and merchants usually have small amount of liquidity. If government comes into business then they become liquidity constrained.

8.2 Government finance

8.2.1 Printing new money

Ibn Khaldûn maintains that a major source of funding government expenditures is tax revenue. Government should not use mint as its financing machine. The mint is a religious institution under the Khalifah (ruler) which should mint money in accordance with economic activity or need of the economy and must not be used for financing government expenditures by minting more new money. Because money is a social trust, its supply should be increased only in accordance to economic activity of the society. The measure of gold and silver that goes into a coin series can be any thing, but once a series is launched the amount of metal in coins should not be varied. Otherwise it is cheating the public. Gold and silver are the metals chosen by society as measure and store of value. Price of all commodities can fluctuate except these two metals.

8.2.2 Revenues

Tax revenues are increasing in the lower range of tax rates. But when tax rates are increased very high, the revenue decreases. Thus there exist an optimum tax rate which maximizes tax revenues. The reason for such behavior of tax revenue function with respect to different tax rates is that "when tax assessments and imposts upon the subjects are low, the latter have the energy and desire to do things. Cultural enterprises grow and increase, because the low taxes bring satisfaction. When cultural enterprises grow, the number of individual imposts and assessments mounts. In consequence, the tax revenue, which is the sum of [the individual assessments], increases" III80. This argument is same as what is now known as Laffer curve. When government expenditure exceeds its revenue, which generally happens due to lavish expenditure practices of the government and its officials aimed towards maximizing their own benefits rather than working for their people, government tries to increase revenues by increasing the tax rates, and by creating more tax bases. For example, import duties are introduced. But all these measures results in reduction in tax revenue instead of increasing it. The reason is that people are overburdened by taxes and lose their incentive for business and refrain from economic activity. This then reduces the size of the tax base. The following quotation shows how Ibn Khaldûn thought on this point.

"As a result, the individual imposts and assessments upon the subjects, agricultural laborers, farmers, and all the other taxpayers, increase. Every individual impost and assessment is greatly increased, in order to obtain a higher tax revenue. Customs duties are placed upon articles of commerce and [levied] at the city gates, as we shall mention later on. Then, gradual increases in the amount of the assessments succeed each other regularly, in correspondence with the gradual increase in the luxury customs and many needs of the dynasty and the spending required in connection with them. Eventually, the taxes will weigh heavily upon the subjects and overburden them. . . .

The assessments increase beyond the limits of equity. The result is that the interest of subjects in cultural enterprises disappears, since when they compare expenditures and taxes with their income and gain and see the little profit they make, they lose all hope. Therefore, many of them refrain from all cultural activity. The result is that total tax revenue goes down, as [the number of] the individual assessments goes down" III80-81.

He then makes a policy recommendation that "the strongest incentive for cultural activity is to lower as much as possible the amounts of individual imposts levied upon persons capable of undertaking cultural enterprises" III81.

9 Macroeconomic Equilibrium

"Income and expenditure balance each other in every city. If the income is large, the expenditure is large, and vice versa. And *if both* income and expenditure are large, the inhabitants become more favorably situated, and city grows" IV238 (emphasis added).

In the above passage it appears that Ibn Khaldûn is explaining the link between aggregate income and expenditure in an economy. The emphasized words "if both" in the above quotation suggest that this equality is not always necessary except in a situation what we can call equilibrium. If this explanation is correct then the first part of the above quotation shows a notion of GNP identity while the last part of it shows a notion of equilibrium relation.

Aggregate Demand = Aggregate Supply

This idea is a little more evident when Ibn Khaldûn compares the prosperity of two cities Fez and Tlemcen and says that "Whenever income and expenditure [combined] are greater, conditions are better and more favorable" IV237.

These are some Keynesian type arguments in his *Muqaddimah*. His notion of multiplier effect works through increase in labor force. When income and expenditure are high in some country more population is attracted towards it. Profit margin increases due to higher demand. Incentives for production increases and list of technologies [number of crafts] increase to elevate supply. "The value realized from them (labor)⁵ increases, and as a result, profits are again multiplied in town. Production there is thriving even more than before. And so it goes with second and third increase" IV236.

10 Measure of Wealth of Nations

Wealth of nations lie in the economic activity undertaken in a society and not in the amount of gold and silver possessed by the society. Therefore in order to increase prosperity, an increase in the level of economic activity and an active labor force is required.

"The question has been asked: Where is the property of nations ...? [In reply,] it should be known that treasures of gold, silver, precious stones, and utensils are no different from [other] minerals and acquired [capital], from iron, copper, lead, and any other real property or [ordinary] minerals. It is civilization that causes them to appear, with the help of human labor, and that makes them increase or decrease" V285.

"The common people ... think that the prosperity of these people is the result of the greater amount of property owned by them, or of the existence of gold and silver mines in their country in large number [than elsewhere], or of the fact that they, to

⁵context added by me

the exclusion of others, appropriated the gold of the ancient nations. This is not so

A large civilization yields large profits because of the large amount of [available] labor, which is the cause of profit" IV245–246.

11 Conclusions

From the discussions in the earlier sections, it appears that Ibn Khaldûn's economic thought was very sophisticated and objective. He showed extensive knowledge of fundamental economic concepts such as division of labor, its limitation by the size of the domestic and international market, factor demand as being a derived demand, a notion of Ricardian rent, theory of population cycles, the allocation role and growth role of prices, and a theory of wage differential. His analysis suggest a changing market structure that evolves with society. Ibn Khaldûn showed further, that investment was a function of price level and price variability thus providing an explanation for business cycles. He gave an important role to government in increasing economic activity, and suggested policy issues pertaining to revenue and its behavior. His analysis thus contains microeconomic as well as macroeconomic concepts.

He is far from the moral philosophy with little analysis of his contemporaries in Europe such as Saint Thomas Aquinas. Contrary to the Marchantalist thinking he described the wealth of nations as being embedded in the economic activity of the nation rather than precious stones and metals possessed by them V285 IV245–246. His analysis contains elements of Smith, Ricardo, Malthus, and Keynes who came late after him.

The most important contribution of Ibn Khaldûn lies in his use of the economic concepts along with the rules of sociology, politics, norms, and beliefs to model a coherent and complete system to explain the causes and dynamics of rise and fall of civilizations, which was his primary objective in *Muqaddimah*, a task which he successfully completed. His model points out that social science is a complete whole in which economics, norms, politics, and beliefs all mutually interact. The scope of modern economics can be extended to greater horizons if one incorporates such factors explicitly in economic models.

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