

Tax-Farming and Resource Allocation in Past Islamic Societies

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ABSTRACT. Tax-farming as practiced in Medieval Egypt, Moghul India and the Ottoman empire is considered as a means of resource allocation in an interest-free economy. Material from Turkish archives is utilized to analyze how the system worked by giving signals to the state, in the form of the bids made by the tax-farmers, as to the relative profitability of the various sectors of the economy. In making these bids, the tax-farmers were guided by the expected rates of return in the relevant sectors. Changing profit expectations caused geographical and sectoral shifts of resources. The paper places the historical discussion into perspective by making a brief review of contemporary literature on resource allocation in a modern interest-free Islamic economy. It also notes some negative aspects of the practice of tax-farming.

I

Abolition of the Rate of Interest and the Problem of Resource Allocation A Summary of Recent Contributions

In response to the prohibition of interest in Islam, the Muslim economists have recently made serious studies aimed at the abolition of *riba*. In this process one of the most difficult problems they faced has been the important role played by the rate of interest in the allocation of resources. Convinced of the importance of this role Professor Naqvi argued against a sudden abolition of the rate of interest. Since the Present Value criterion was indispensable for an efficient allocation of resources between the alternative sectors or projects, he argued, the abolition of the interest rate, which enters as a component into the Present Value formula, would deprive us from allocating our resources rationally.

"Dynamic efficiency involves a comparison of the present values of utilities of future income streams, discounted back to the present at the current rate of interest. Additional investment is recommended in those 'activities' or sectors where, on the margin, the present values are the highest. Hence, the rate of interest links up current investment decisions with their future profitability throughout the economy." (Naqvi. p. 75).

A rigorous counter attack by Anas Zarqa initiated a lively debate which still continues⁽¹⁾. A formalized version of his views has been published recently (Zarqa, 1983). In this paper Zarqa argues quite convincingly that not the rate of interest but the rate of return on equity (real investment) is the proper discount rate, The two become identical only in a world of certainty, an absurd as well as un-Islamic assumption⁽²⁾.

"Discounting by a rate of return is based on the principle of opportunity cost... The opportunity cost of venture capital (equity investment) is what the funds would earn if invested as venture capital in some other firm." (Zarqa, 1983, p. 214).

Drawing upon the theory of corporation finance, Zarqa argues that the ratio of Earnings per share/Price per share, must be utilized as the discount factor. This ratio, by the way, is "nothing but the rate of return of the firm's previous investments." Thus, according to the theory of corporation finance the discount factor of an all equity firm should be the rate of return of its risk class and not the rate of interest. This is so, even in a capitalist economy where interest rate is permitted. The following quotation is also revealing:

"...differences in rates of return on capital in the private sector of the economy reflect differences in riskiness among alternative lines of investment, and that these differences are of normative significance for the allocation of capital in the public sector. Thus, when discounting costs and benefits of a particular type of public investment, the government should take as its discount rate the rate of return on capital in a private industry of similar riskiness"⁽³⁾.

Thus, Zarqa has made it clear that, theoretically speaking, we do not need the rate of interest to allocate our resources between alternative projects. The widespread use of the interest rate in the West for this purpose has no theoretical basis.

Yet Zarqa's own paper has drawn criticism from Ali Khan and Mahfooz Ali. Ali Khan criticizes Zarqa on the grounds that discounting one way or another is not justified. Due to the uncertainties in the real world we should not use any rate at all for discounting purposes. After all, "it is precisely because of this uncertainty of the rate of return that profit sharing is advocated." Mahfooz Ali expresses the same view,"... because of the presence of uncertainty in the external environment, we cannot be sure of one definite rate at which the stream of future income should be discounted"⁽⁴⁾.

Thus, the use of interest rate for discounting is theoretically wrong even within a capitalist framework. The use of alternative, and more correct discount rates, in conformity with Islamic values on the other hand, still fails to escape criticism due to the fact that in an uncertain world the choice of one definite discount rate would still be absurd. Islamic economists appear to approach the conclusion that there cannot be a

general fixed rate of discount in an Islamic economy. Instead, each firm must take into account the rate of return of its previous investments (Earnings per share/Price per share ratio) and the rates of return of other firms facing similar risks⁽⁵⁾.

Let us assume that the firms, indeed, act according to the rates of return (profitability) criteria mentioned above, what would be the macro economic implications of this? More specifically, how would the resources of the economy be allocated between different sectors? The answer is given in a paper where the profit motive of the entrepreneurs is emphasized (Siddiqi, 1983). Accordingly, the entrepreneurs concentrate their efforts in those activities where the expected rates of profits are the highest. Thus, the resources of the society are allocated by the profit expectations of the entrepreneurs.⁽⁶⁾ The market forces render interest rates redundant, Siddiqi argues:

"...the market does effect allocation of resources without there being any rate of interest ... insofar as there is scope for a rational indicator the expected rate of profit serves the purpose. The absence of the rate of interest from the scene does not pose any problem whatsoever... Its role in investment decisions depends on the fact of its existence - an institutional reality rather than an economic necessity ..." (Siddiqi, 1983, p.180).

The implication here is clear; we have seen above that there is no theoretical justification for the existence of the rate of interest as far as the allocation of resources is concerned, According to Siddiqi, the reason for the continuous persistence of *riba* is basically institutional.

Thus, what we need is an institution in which the rate of interest plays no part. Yet, this institution should be able to allocate the resources of the economy efficiently and correctly by taking into account the rate of return and opportunity cost principles. And, finally, it must not violate the teachings of Islam.

At this point it is tempting to look back at the economic history of the Islamic societies and ask; how did these societies allocate their resources? In this context we can be fairly sure of two things; first, the rate of interest must have played a totally insignificant role in the process of resource allocation in these societies. And second, these societies must have allocated their resources efficiently; after all, it would be insane to argue that the glorious Islamic civilization was achieved with essentially a misallocation of resources!

II Tax-Farming

Total investment in historical context must be classified into three sub-groups:

- a) Investment made on day-to-day basis by thousands of producers, peasants and merchants. Such investments were made in response to the market forces.
- b) Investment made by the tax-farmers within the framework of the tax-farming system.

c) Investment made by the government.

In short; $I = I_p + I_f + I_g$

where I_p refers to "a", I_f to "b" and I_g to "c".

The basic argument of this paper is that, as far as the sub-group "b" is concerned, it was the institution of tax-farming which performed the function of resource allocation in conformity with most of the above mentioned requirements. Furthermore, I_g was heavily influenced by the magnitude and changes occurring in I_f indicating clearly the important role played by the tax-farming system in the allocation of resources.

The institution of tax-farming, performing such an essential function, was wide spread all over the Islamic world from the earliest days of Islam until the recent times. Indeed, tax-farming was known in Medieval Egypt (*Daman and Qabala*), in Mughal India (*Ijara*) and in the Ottoman Empire (*Illizam*). In short, it dominated the economic life of Muslims from the Atlantic to the Indian Ocean for a period of more than one thousand years!

1. Historical Origins of Tax-farming in Islam - An Institutional Framework **a. Medieval Egypt - Daman and Qabala**

As the term tax-farming suggests this institution originally had the function of tax collection rather than resource allocation. At the present level of our knowledge, the earliest evidence on the existence of *Daman* dates from 187 A.H. when Mahfuz b. Sulaiman contracted (*Daman*) for the taxes of the whole of Egypt with the caliph (Morimoto, 1981, pp. 228-229). Gradually, however, we note the diffusion of this system involving more and more *Damins* in smaller and smaller regions. Eventually the *Daman* system evolved into the *Qabala* which penetrated the entire country and was reduced to the village level. The terms *Daman* and *Qabala* lost their distinction in the Fatimid era, when they began to be used interchangeably.

Based upon al-Maqrizi, Morimoto describes the functioning of the system as follows:

"When tax contracts for all the lands were to be made, the financial director of Egypt took up his seat in the Mosque of 'Amr b. al-'As in al-Fustat and people from villages and towns assembled there. A man indicated the various regions by shouting out the agreed quotas (*sofoqot*) for the contracts in turn, while the fiscal scribes in front of the financial director wrote down the quotas for *kuras* for which the auction had already been finished and the agreed quotas for those people among the crowd who had made a successful bid of their contracts for the taxes. The tax contractors (*mutaqabbils*) used to contract for the taxes of a specific region (*balad*) for a term of four years on account of draught, flood and other causes" (Morimoto, 1981, p.232).

Thanks to al-Maqrizi we identify the following main characteristics of this system. First, the tax collection from the entire Egyptian countryside appears to have been organized in this system. Second, and most importantly, from the point of view of this paper, the decision as to who should collect the taxes from each tax zone was taken as a

result of a competitive auction. The significance of this will be elaborated below. Third; the term of contract of each *mutaqabbil* (tax-farmer) was valid for four years. In short, we have here a system which solves the problem of revenue collection from the land.

At this point we may wonder just what induced the *mutaqabbil* to commit himself to the government and assume the responsibility of tax collection? In theory, between the 8th and 10th centuries A.D. there was no obvious inducement, for, the tax-contractors forwarded half of the auctioned amount to the treasury and kept back the remaining half with which they were supposed to finance irrigation work and other infrastructure investments (Morimoto, p.244). Yet, in practice the *mutaqabbils* simply usurped a part of this second half. This was their gain. And it was for this portion that they competed in the auctions.

During the Tulunid era (868-905 A.D.) the tax-farming system was well established in Egypt and it is argued that the well-known Tulunid prosperity was mainly due to this system. The overwhelming importance of the tax-farming system for the financial structure of Tulunid Egypt is clearly demonstrated by the following episode. In the year 292 A.H./905 A.D. the Abbasid armies defeated the Tulunids and after leaving a strong garrison and appointing a governor and a financial director returned to Mesopotamia. In the same year a former Tulunid general, Mohammed al-Haliji, revolted and proclaiming the restoration of the Tulunids marched on to al Fustat. The Abbasid governor and the financial director were forced to retreat to Alexandria. Morimoto informs us that among the few things that they carried with them to Alexandria the tax-farming records were the most important. Indeed, the Abbasid rulers knew perfectly well that the tax-farming system constituted the backbone of the Tulunid financial power. Notwithstanding this, presumably taking full advantage of their intimate knowledge of the local affairs, the Tulunid rebels managed to locate the tax-farmers and forced them to pay their contracted dues to them rather than the Abbasids. In short, a battle for the control of the tax-farmers had been waged between the contenders for power; the records of the tax-farming system had clearly become the *sine qua non* of fiscal administration (Morimoto, 1981, pp. 250-251).

The late Fatimid era witnessed a major change in the tax-farming system; this was the reduction of the sum forwarded to the Treasury from one half to one third of the total contracted sum. Thus, the amount usurped by the tax-farmers increased, obviously increasing their profits as well as the competition in the auctions. By the tenth century A.D. about half of the revenue of Egypt was collected by the tax-farming system. In passing, the reader should note that this ratio increased to about 80% in 1527 (Barkan, 1953, p. 270).

In Ayyubid Egypt the tax-farming spread to all the sectors of the economy. Mining, fishing, even the removal of ordure from urban dwellings was included in the system. Moreover, the military increasingly became associated with the system which soon performed not only the function of revenue collection but also the maintenance of troops (*iqta'*). Involvement of the military soon led to sub-tax-farming, whereby the officer (*muqta*) had the taxes of his allotment collected by locals appointed at private auctions (Rabie, 1972, p. 137).

We are now in a position to summarize the main features of the tax-farming system in Medieval Egypt:

1. The system started originally with agricultural taxation due to a region but then spread to all the tax sources in the economy.

2. In this system the right to collect the taxes due to a tax source (*mukataa*) was delegated by the state to a tax-farmer as a result of competitive bidding. The highest bidder being delegated the authority to collect the revenue. The tax-farmer usurped part of this revenue and transferred the rest of the Treasury. The usurped portion constituted his profit.

3. The tenure was limited to four years.

4. The tax-farmer guaranteed to pay to the state a certain sum, determined in the auction.

It is the last feature which indicates clearly that the tax-farmer was in fact an entrepreneur, a risk taker. Indeed, if the revenue he collected exceeded his total cost he enjoyed a profit. (Total cost here includes the amount he paid to the Treasury plus his operational expenses). Conversely, if the revenue he collected fell short of the amount he promised to the state in the auction he suffered a loss. The risks were great indeed, if he could not finance this loss with his own means he would inevitably end up in prison and all his assets would be confiscated.

b. Mughal India (The Ijara System)

Although it is difficult to pinpoint the beginnings of the Indian *Ijara* system there is evidence that in the 14th century A.D. a system of auctioning was in operation. Yet due to the frequent interference of the military the system does not seem to have operated smoothly. *Ibn Batuta* gives ample details about the problems caused by military interference. (Habib and Raychaudhuri, 1982, p.72).

The tax-farmer in Mughal India was subject to similar risks as his counterpart in Egypt. A failed *amil* usually ended up in prison. While he was imprisoned, his accounts were rigorously controlled, a process which might keep him there for years. He took such risks in return for expected profits which materialized as the difference between what he collected from the tax-source and the amount which he paid to the *Jagirdar* (Habib, 1963, p.233, 285). When *Jagirdars* assigned their agents the authority to collect the taxes from their territory they exacted pledges from the latter concerning future collections. They, also, generally took an advance, *qabd*. If another person paid a higher *qabd* he could easily replace the first *amil*. This contrasts clearly with the tax-farming system in Egypt where the *mutaqabbil*, according to al-Maqrizi, appears to have enjoyed a safe tenure of four years (Morimoto, 1981, p.232).

It should be clear from above that the *Jagirdar* was essentially an absentee landlord. Indeed, under the Mughal regime the *Jagirdars* were frequently forced to change their locations. This compelled them to initiate the system of sub-tax-farming explained above.

It is interesting to note that the Mughal rulers considered the *ijara* as a system of agricultural investment. This attitude is revealed from various decrees according to which abandoned villages were to be given away as *ijara*, on the condition that the tax-farmer should restore them to prosperity. In short, the private entrepreneurs (tax-farmers) were expected to invest in agriculture in return for the potential surplus (Habib, 1963, p.235). Yet, this practice was the exception rather than the rule for, unlike Egypt, in India the Mughal administration did not usually endorse the tax-farming system. Consequently we cannot follow from the official documents just how widespread this system was. There is, however, no doubt that while it was quite extensively applied in the *Jagir* lands it was seldom used in the *Khalisa* lands. We have seen so far how the *ijara* system in India functioned as a system of revenue collection. Yet, it is clear that it also functioned as an instrument of resource allocation. Indeed, with the expansion of the *ijara* system a massive reinvestment in the agricultural sector occurred whereby the powerful *zamindars* acquired extensive *taallukat*, newly purchased land (N.A. Siddiqi, p.26). An even more interesting evidence concerning the allocation of resources through the *ijara* system is provided by Habib who showed that urban bankers invested heavily in the *ijara* system and emerged as absentee landlords (Habib and Raychaudhuri, 1982, p.177).

As in Egypt, the Indian *ijara* was not limited to agriculture only. The diamond mines of Kollur for instance, were also organized as an *ijara*. In these mines some 30,000 workers were employed by capitalist entrepreneurs who farmed out small plots at private auctions to sub-contractors. The period of lease was extremely short, sometimes limited to a few days or, in extreme cases, to a few hours!

2. *Iltizam* in the Ottoman Empire

a. *Basic Characteristics and Evolution*

The tax-farming system reached its ultimate perfection in the Ottoman empire where it was known as *Iltizam*. Thanks to the Finance Ministry Registers (22,000 volumes) kept in the Turkish Prime Ministry Archives in Istanbul we are not only better informed about the Ottoman *Iltizam* but are also in a position to make quantitative enquiries. Indeed, the bulk of the enormous Finance Ministry Registers collection is made up by the so-called *mukataa defterleri* i.e., the tax-farm registers, where we can follow not only the actual auction prices but also the names of the persons who obtained the tax-farms, the price they paid in the auctions, the length and transfer of the tenure, as well as all the other special conditions and circumstances related to the functioning of the system. In what follows I will try to present a very brief explanation of this vast system with special reference to the problem of resource allocation.

As in Medieval Egypt and Mughal India, in the Ottoman empire also, *Iltizam* was basically considered as a system of revenue collection in the economy. The Ottoman *multezim*, like his counterparts in Medieval Egypt and in Mughal India, was also essentially a risk taker, an entrepreneur, who was delegated the right to collect taxes from a *mukataa* (tax source) by the state. This delegation occurred in a competitive bidding where the highest bidder obtained the right to collect the taxes from a *mukataa*. If the *multezim* managed to collect more revenue than his total cost (the auction price paid plus operational expenses he enjoyed a profit, otherwise he suffered a loss). The

risks were also similar; as in the earlier Islamic states, a *multezim* not able to pay to the state the promised amount determined in the auctioned, risked confiscation or imprisonment (Cizakca, 1980b, p. 147).

To ensure the greatest possible revenue to the state the Ottomans were very careful about the competitiveness of the auctions. For this purpose they permitted all the "nations" into the auctions without any discrimination⁽⁷⁾. The *mukataa* registers reveal clearly that Muslims, Jews and Armenians freely competed against each other. It is also interesting to note that the enormous sums involved forced many participants to form partnerships⁽⁸⁾. Such partnerships were formed not only between Muslims but also between Muslims and non-Muslims. It seems, the competitiveness of the auctions was generally achieved (Cizakca, 1981, p.5).

Thanks to the Ottoman budget studies of the late Professor Barkan we note that in the financial year 1527-28, 23.16% of the total revenue of the Ottoman European provinces was collected through the *mukataa* system, the bulk of which was organized as *iltizam*. This percentage was 19.75% for the Anatolian provinces and about 80% for Egypt (Barkan, 1953, pp. 269-270).

Unlike Fatimid Egypt but like the Mughal India, the Ottoman tenure system was not fixed. Documents reveal a spectrum of tenure ranging from one to twelve years. Again, as in Mughal India the Ottoman *multezim*, also, could not be sure to keep his tenure till the end. Indeed, he could lose it anytime if somebody else decided to pay a higher amount to the Treasury. Overexploitation of the tax source, extortion and lack of long term investment were the inevitable undesirable effects of this practice. Yet, unlike the Mughals, the Ottomans did something about this, as we will see below.

b. The Ottoman Malikane (Extended Iltizam)

In January 1695 they launched the *malikane* system whereby the *mukataat* were alienated to the *multezim* (from now on *malikaneci*) on a life-time basis (Genc, 1975, p.236). This alienation occurred, again, in auctions. Yet the *malikaneci*, unlike the earlier *multezim*, had to make two payments; a very large lump sum payment, *muaccele*, and smaller annual payments. The exact amount of the *muaccele* was determined as a result of competition, the annual payments were fixed by the government. The *muaccele* could not go below a minimum amount fixed by the government. This minimum amount was calculated by the state as two to ten times the annual *average estimated profit* of the *mukataa*. Afterwards, these calculated minimum amounts were openly displayed at the doors of the Finance Ministry in Istanbul (Genc, 1975, p.238). The candidates then came and registered the actual *muaccele* amounts they were prepared to pay, thus bidding up the minimum amount calculated by the state in the process. The highest bidder, naturally, obtained the *mukataa* for his lifetime. This person, *malikaneci*, was then given a document, *berat*, confirming his rights over the *mukataa*. The government then could not in any way interfere in the affairs of the *malikaneci* unless the local judge, *kadi*, reported a serious mischief.

In the event of death, the inheritors of the deceased could not claim the *malikane* which was immediately resold at a new auction. The *malikaneci* was permitted to sell

his *malikane* as he wished. After 1735 such sales were subjected to a tax equal to 10% of the original *muaccele* amount (Genc, 1975, p. 240).

The state took elaborate measures to protect the peasantry. Indeed, there are many examples of *malikanecis* loosing their *malikanes*, without any compensation, for charging the peasantry excessive tax rates. The state was so sensitive to the protection of the peasantry that some officials were seriously worried about possible injustice to the *malikanecis*.

Although the original intention of the 1695 decree was the protection of the *malikane* by directly involving the *malikaneci* in the long term productivity of the tax source, this was hampered due to the tendency of the *malikanecis* to remain in the capital and manage their *malikanes* by a system of privately organized sub-tax-farming and like the *jagirdar*, the Ottoman *malikaneci* also ended up being an absentee landlord. In the absence of the *malikaneci* which was, usually, most of the year, the day-to-day management of the *malikane* was left to the *ayan*, the local *multezim*, who obtained the right to manage the *malikane* in private auctions organized by the *malikanecis*. Major conflicts between the *malikanecis* in the capital and the local *ayans* in the distant provinces continued throughout the eighteenth century with the result that the protection of the tax source was not achieved (Genc, 1975, p. 245).

Seventy-nine years after its establishment the *malikane* system dominated over overwhelmingly the Ottoman financial system. In this period the number of *mukataat* as signed as *malikanes* increased by 209% (from 220 to 680). The revenues these *malikanes* yielded increased by 88% (from about 200 million akces* to 375,171,600 akces). In the same period the annual revenue to the state increased by 1400% (from 10,752,920 akces to 161,619,480 akces).

These statistics should indicate without any doubt the overwhelming importance of the *malikane* system for the Ottoman finance (Genc, 1975, p.249).

3. *Iltizam* as an Instrument of Resource Allocation

We are now in a position to link this very brief summary of the vast tax-farming systems applied by various Islamic states to the theoretical problems faced by the modern Islamic economists mentioned at the beginning of this paper.

First of all, it must be emphasized, once again, that *iltizam* functioned as an instrument of resource allocation only for the *multezims*. The vast sums invested by the *multezims* during the competitive auctions were not investments designed to enhance the productivity of the tax-source. They were, rather, sums invested to obtain the right to tax the individual producers, peasants or merchants involved in a particular economic activity. Thus, two types of investment activity were occurring more or less simultaneously. While thousands of producers, merchants and peasants were making investment decisions in response to the market forces in the hope of earning greater profits, the *multezims* had to compete among themselves in order to obtain the right to

* "... the name given in Turkish to the Ottoman silver coin", The Encyclopedia of Islam New Edition, Leiden: E.J. Brill 1979.

tax these people. *İltizam* neither initiated nor reinforced the responses of the individual producer, it was, rather, superimposed upon him just like any tax on production. Thus, *iltizam* as an instrument of resource allocation was operating at a completely different level. While at lower level the individual producer made his investment decisions in response to the market forces, at a higher level the *multezim* needed the *iltizam* system in order to be able to choose between alternative tax-farms.

In short, *İltizam* allocated the resources of the *multezim* and not that of the producer.

Since, however, the sums invested by the *multezims* reached to enormous proportions (see; Barkan, 1953; Cizakca, 1980(a), 1984; Genc, 1975 and Shaw, 1962) and since by sending continuous signals to the state the *iltizam* system also guided the government investment (Cizakca, 1980b) it was of vital importance that the resources of the *multezims* be allocated rationally. We will now examine this problem.

But first a few words about how the *İltizam* system guided the investment behavior of the state. First of all, it informed the state as to the relative profitability of the various types of trade and industry. Obviously, the greater the auction prices (revenue), the more the state was interested in investing in a particular economic activity. The information on auction prices of the entire Ottoman *İltizam* system was regularly supplied to the state. Historians can find this information in the 22,000 volumes Finance Ministry Registers held in the Prime Ministry Archives in Istanbul. Based upon this information the state invested directly in certain sectors. In this context the state silk factories *Karhane-i Hassa* are well-known (Cizakca, 1980b, p.145).

Even more important was the indirect infrastructure investment made by the state. The vast network of caravanserais and caravan routes must be mentioned in this context. The state allocated in 1527-28 financial year 12% of its revenue to the *Waqf* system mainly in order to finance the construction and maintenance of this network (Barkan, 1953, p. 272A). The exact location of these caravanserais and *zaviyes* was determined by the signals which the *İltizam* system sent to the state. State invested in those sectors and regions, which yielded the greatest revenue. Needless to say, the above mentioned system was not a unique characteristic of the Ottoman empire, a similar system can be found also in Iran under the Ilkhanids (Inalcik, 1970, pp. 208- 209).

Last but not least, the foreign policy and hence the direction of the military activities were affected by the *İltizam* system. Inalcik finds a close correlation between the revenues accruing to the state from the silk trade and the Ottoman campaign into Iran. More specifically he argues that "Not content with the control of the outlets (of the silk route), the Ottomans attempted in the sixteenth century to place the north Iranian centers of silk production, such as Shirvan and Gilan, directly under their own domination" (Inalcik, 1970, p. 211).

Inalcik's point is confirmed by the following episode; it is well-known that among the conditions of the peace treaty signed in 1613 with Iran the Ottoman government demanded that the Persians send 200 *yuk* of silk per annum. It is also known that the Ottomans started another campaign against Iran in 1617 because the Persians failed to

send this silk (Cizakca, 1980b, p.146). Thus it is clear that the Ottoman state was fully aware of the economic importance of silk and it had made the continuous supply of raw silk the focal point of its policy vis a vis Iran. Thus, construction of vast road and caravanserai networks constituted an important part of the total government spending, and the *Illizam* system provided the main criterion for allocating the vast resources of the state.

Now let us return to the problem of whether the *Illizam* allocated the resources of the *multezim* rationally.

Illizam and the Rate of Return

As it will be remembered, Islamic economists consider the rate of return on investment as the proper discount rate. It should be clear from the historical evidence presented above that in all three Islamic states considered, the tax-farmer was guided primarily by the expected rate of return when he competed in the auctions. More specifically, he knew fairly well his total cost (the auction price plus an estimated allowance for the operational expenses) and his *expected* revenue. Both being determined by past personal experience and/or by observing other tax-farmers who were in charge of the *mukataa* formerly. The difference between the expected revenue and expected cost yielded the expected profitability, and the tax-farmer invested in that *mukataa* where the expected profitability was the highest.

The past personal experience and the observation of the past experiences of others in the same sector or field, moreover, is the closest approximation to what Zarqa has borrowed from the theory of corporation finance as the ratio of earnings per share/price per share, which is "nothing but the rate of return of the firm's previous investments" (Zarqa, 1983, p. 216). Furthermore, all of this is in complete agreement with the Modigliani-Miller Theory that "... regardless of its financial structure or method of financing, the cost of capital to a firm is essentially the rate of return of its risk class (i.e. the rate of return earned by other firms that are subject to a similar degree of risk.)" (Zarqa, 1983, pp. 216-217).

In short, the apparent conclusion which has been recently reached by the Islamic economists namely that there cannot be a general fixed rate of discount, and that each firm must consider the rate of return of its previous investments and the rates of return of other firms facing similar risks, found widespread application in the Islamic tax-farming system⁽⁹⁾.

More interestingly, the state also applied the same criterion in its dealings. Indeed, it was shown above that when calculating the minimum *muaccele* amount to initiate the auction, the state estimated the annual profit to be yielded by the *mukataa* to its *malikaneci*. The minimum *muaccele* amount was then calculated by multiplying this estimated annual rate of return, by a minimum multiplier of 2 or a maximum one of 10. The exact amount of the multiplier within this range, on the other hand, was determined by taking into account the economic conjuncture (Genc, 1975, p.238). Thus, the state not only considered the rate of return criterion but was also sensitive to the changing market conditions affecting this rate of return.

Another theoretical argument forwarded by the Islamic economists was the requirement that the principle of opportunity cost should be taken into consideration. Obviously, for the opportunity cost principle to be operational, availability of choice is the essential condition. This condition certainly existed in all the states considered. It was shown above that a bewildering variety of *mukataat* were made available to the investors in the auctions. Evidence from medieval as well as Ottoman Egypt, (Morimota, Rabie, Shaw) and from the Ottoman empire in general (Cizakca, 1981 and 1984) confirm this point without any room for doubt. With ample choice available, the opportunity cost concept was obviously an important factor affecting the flow of investment into specific *mukataat* as well as depriving others from investment capital. Thus availability of choice led to full utilization of the opportunity cost concept, which in turn, helped redirecting investment in response to the market conditions. All of this is in complete agreement with Siddiqi's argument that:

"Each successful act of productive enterprise takes the society forward as its resources are transformed into objects of greater value. As the increment in value produced (profits) accrues to the entrepreneur in the first instance, entrepreneurial activities are directed to where it is expected to be maximum. This is how the expected rate of profit allocates the resources of society ..." (Siddiqi, 1983, p. 179).

In this case, of course, it was the resources of the *multezim* which were being allocated by the expected rate of profit. Thus the greater the profits enjoyed by the producers or merchants in a particular field of activity the more the *multezims* were attracted there. As such, the *iltizam* system probably curbed the development potential of the past Islamic societies.

While, on the one hand, *iltizam* played this curbing effect on the development potential of the economy, on the other, it sent continuous signals to the government. Indeed, it was through the *iltizam* system that the state was informed which economic activities were the most profitable and it took its own investment decisions within the framework of such knowledge.

4. Further Evidence from the Turkish Archives on *iltizam* as an Instrument of Resource Allocation

The above arguments are supported by data obtained from the *Mukataa* registers kept in the Turkish Prime Ministry Archives. First let us observe the shift of resources within one sector across geographical regions in response to changing political conditions, which affected the profit expectations.

a. Geographical Shift of Resources in Response to Changing Profit Expectations - The Case of the Silk Industry

The period of the late sixteenth early seventeenth centuries, witnessed perhaps the greatest turmoil in the history of Anatolia known as the Celali uprisings. These uprisings caused by complex reasons (Akdag, 1975) disrupted the entire economic life in Anatolia. Under such conditions, naturally, the raw silk which was the basic raw material for the Ottoman silk industries could no more be supplied regularly to the major Anatolian silk centers such as Bursa and Tokat. The interruption of the raw

material supply reduced the profits in all silk-related activities in these centers (Cizakca, 1980a, p. 550). By contrast, other silk processing regions of the empire; Greece and Syria were not affected by the uprisings as a result of which silk supplies were directed from Anatolia to those regions (Cizakca, 1984). Consequently, the profits in all silk-related activities in Greece and Syria must have increased considerably. Under these conditions, if there was an efficient system of resource allocation, we would expect the resources of the Ottoman economy to be shifted from the troubled Anatolia where profits were either uncertain or were declining to Greece and Syria where they must have been on the rise. We have evidence that, indeed, this is what happened.

In figure 1, the auction prices of four *mukataat*, each in the silk sector but in different regions, are depicted against time which runs from 1550 to 1680 in the horizontal axis. On the vertical axis the auction prices, expressed in millions of Akces, are shown. The *mukataat* considered here are the so-called *mizan-i harir* mukataasi (tax-farm of silk scales) where the amount of raw silk locally produced as well as imported were weighed and taxed. The trends in figure 1 reflect the auction prices through time which the tax-farmers paid to the state in order to obtain the right to collect these taxes on raw silk. These trends confirm the above argument i.e. the expected shift of resources within the silk sector from Anatolia to Greece and Syria. Indeed, if we study the trends of Bursa and Tokat silk scale tax-farms (both in Anatolia) between the years 1576-1618 we observe a definite decline. By contrast, in the same period the trends of Aleppo and Morea silk scales exhibit expansionary tendencies.

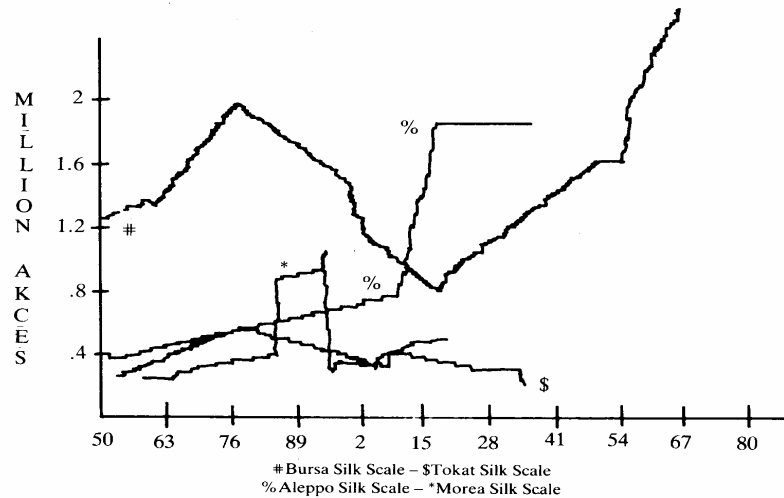


Figure 1. Geographical Resource Shift Silk Sector

This is a clear case of resource shift within one sector across geographical boundaries in response to changing profit expectations. After 1618, when the Celali uprisings were generally suppressed and peace and order was once again established in Anatolia we notice a sharp reallocation of resources in favor of Bursa, the most important silk center in Anatolia.

At this point it would be most interesting to observe an actual tax-farmer involved simultaneously in more than one *mukataa* and reallocating his capital between these tax-farms in accordance with his profit expectations. Due to the paleographical difficulties involved in reading the 17th century Ottoman *Siyakat* script, this is not an easy task but nevertheless I have been able to identify two names, both Jews, involved in more than one *mukataa*. The first tax-farmer, a certain Yasef, was the *emin* of the Istanbul and Bursa silk scales, yet he also invested, in partnership with other Jews, in the Morea silk scale in the year 1619. That "Yasef the Jew" mentioned in the Morea *mukataa* records is the same Yasef, the *emin* of Istanbul and Bursa silk scales, is revealed by the statement in Morea records that Yasef was a resident of Istanbul. The other name is "Kemal the Jew" who invested again in the year 1619 with the above mentioned Yasef in Bursa and simultaneously with a Muslim, Mehmed Aga, in the silk scale of Aleppo⁽¹⁰⁾. Although it is not possible for the present, to document if these people actually shifted their capital from one *mukataa* to another in response to changing profit expectations, it is only a matter of commonsense that, indeed, they must have. Surely a tax-farmer residing in the capital and able to choose as well as actually invest in any of the large *mukataat* auctioned in Istanbul would freely shift his capital between these *mukataat* in response to his profit expectations. The least that we can deduct from above is the fact that Yasef and Kemal were certainly in such a position. Special research on tax-farmers would certainly confirm this point.

So far we have observed evidence on the geographical shift of resources within the same sector. We can now study the shift of resources from one sub-sector into another.

b. Shift of Resources from Declining to Expanding Activities-The Forces at Work

The period 1550-1650 was one of intensifying European pressure upon the Ottoman textile sector. This pressure asserted itself at two levels; first at the raw material level where Europeans competed directly with the Ottoman cloth producers for the available raw material, and second; at the final product level where the Europeans, again, competed directly with Ottoman cloth producers in the sale of cloth in Ottoman markets. The overall result of this competition as well as other factors already explained elsewhere (Cizakca, 1980a and 1984), was a reduction of profitability in the cloth production but an increase of it in the raw material production. Since the Ottoman economic policy at that early period did not know of protectionism, the state did not interfere in this situation. With no state interference we can expect that, if there was an efficient mechanism for resource allocation, the resources of the economy would shift from cloth production to the raw material production⁽¹¹⁾.

Let us examine first if, indeed, the resources shifted away from cloth production.

In Figure 2 the auction prices of two *mukataat* both reflecting bulk of the investment made by the *multezims* in order to obtain the right to tax the cloth production in Bursa and Aleppo are depicted on the vertical axis against time which runs from 1551 to 1651 in the horizontal axis. Both trends clearly indicate that after the turn of the century the *multezims* invested less and less in the cloth sector obviously exhibiting a rational response to the declining expected profitability in cloth production.

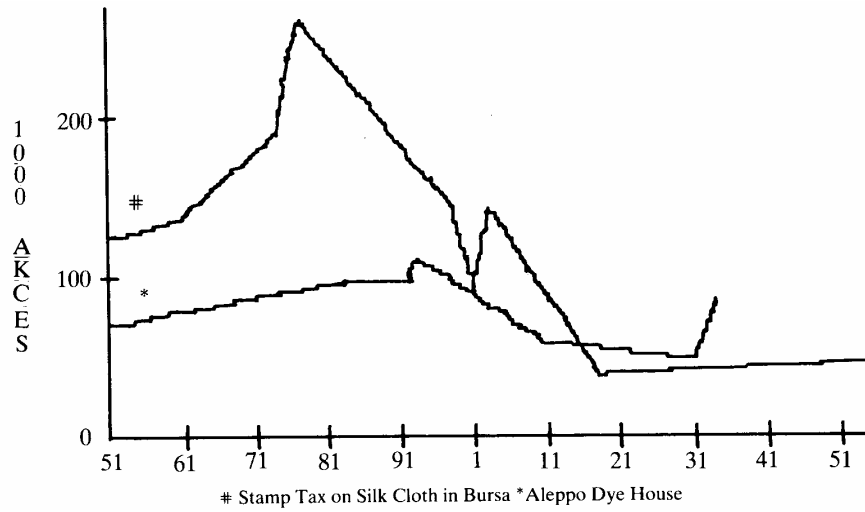


Figure 2. Cloth sector, Bursa-Aleppo 1551-1651*

By contrast, as explained above, the expected profitability was on the increase in the raw material production. Again, with no state interference (Cizakca 1984) we would expect that the resources of the *multezims* to be channelized into the raw material sector.

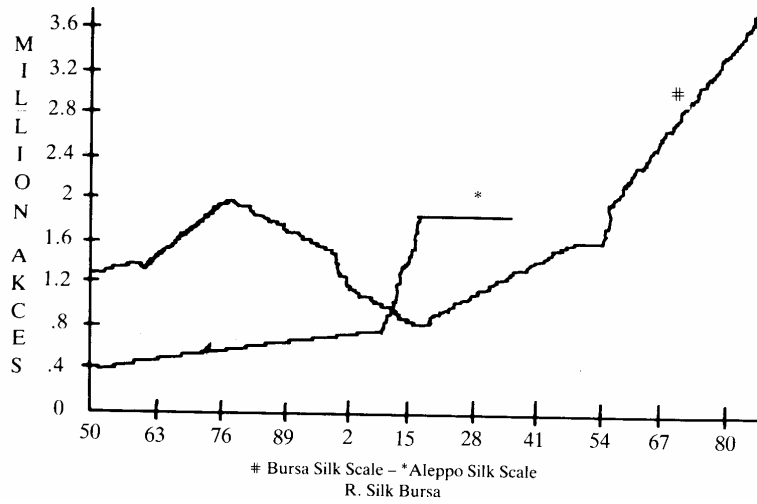


Figure 3 Silk Sector 1558-1688

* Source: **Murat Cizakca** "Incorporation of the Middle East into the European World Economy", *Review*, 1984, forthcoming.

In Figure 3 the auction prices of the silk scale tax-farms (*mizan-i harir mukataasi*) of Bursa and Aleppo are depicted on the vertical axis against time which runs from 1550-1650 on the horizontal axis. A comparison of this Figure with Figure 2 can be most revealing - whereas in Aleppo after 1600s cloth sector could attract less and less investment (Figure 2), Figure 3 indicates that the *multezims* invested sharply increasing amounts in the raw silk sector in the same period. The situation in Bursa was also essentially the same with the difference that in this city investment declined in both sub-sectors between the years 1580s-1620s, a most rational reaction on the part of *multezims* to the turmoil (Celali uprisings mentioned above) and increasing uncertainty. However, once, peace and order is reestablished we note that whereas cloth sector in Bursa continues to fail to attract investment (Figure 2), sharply increasing amounts are invested in the raw silk sub-sector (Figure 3).

Thus we can conclude safely that in the Ottoman silk industry the resource allocation occurred in a rational way in response to the changing profit expectations with the concept of opportunity cost being fully considered in the process. The fact that the same *multezim* could invest simultaneously in more than one *mukataa* indicates clearly the availability of choice and the utilization of the opportunity cost concept.

The mohair industry of Ankara was also facing similar pressures as explained above (Cizakca,1984). And predictably, the response of the *multezims* was also similar; they simply reduced their investments in this industry as indicated by Figure 4.

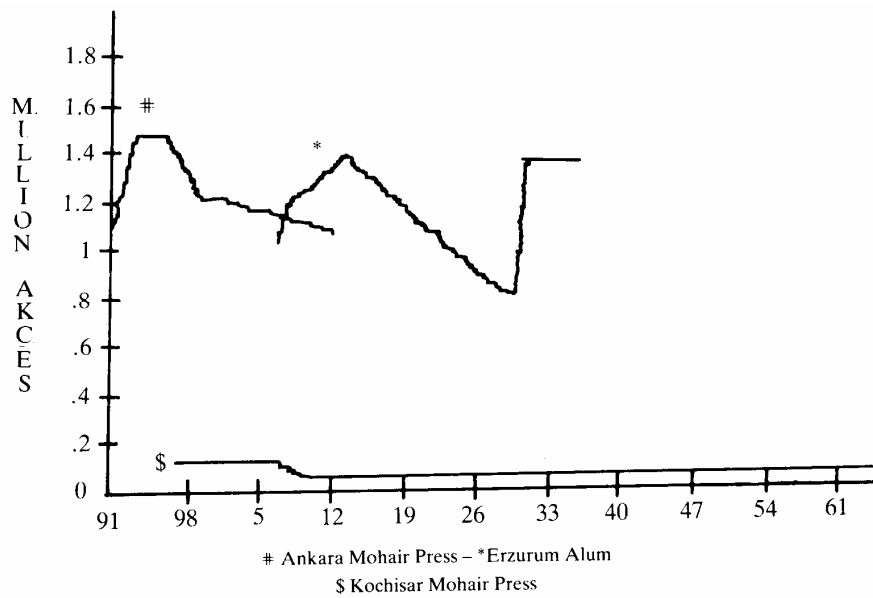


Figure 4. Mohair-Alum Sectors in Anatolia 1591-1661*

* Source: Murat Cizakca "Incorporation of the Middle East into the European World Economy", *Review*, 1984, forthcoming.

The trend of the auction prices of the alum mines in Erzurum depicted in Figure 4 is also revealing. We note a declining investment trend between 1600's and 1620's during the heyday of the Celali uprisings and a sharp recovery after the reestablishment of peace and order. Needless to say, alum production was closely associated with the fate of the textile industry.

In sharp contrast to the silk and mohair cloth sectors which consistently exhibited declining investment trends, the cotton cloth sector attracted increasing investment throughout the period. This is due to the fact that the European pressure which exerted itself on the silk and mohair industries left the cotton industry alone. The world conjuncture played an important part in this - the prime user of Ottoman cotton, the German industry, was ruined due to the Thirty Years' War and additional sources of raw cotton came into being overseas (Cizakca, 1984). The result was cheap and abundant home produced raw material with a rapidly increasing demand for the final product, the cotton cloth. Consequently, profit expectations in cotton cloth sector were great and the *multezims* responded to this, once again rationally, by investing more and more in the related *mukataat* Figure 5 confirms this point.

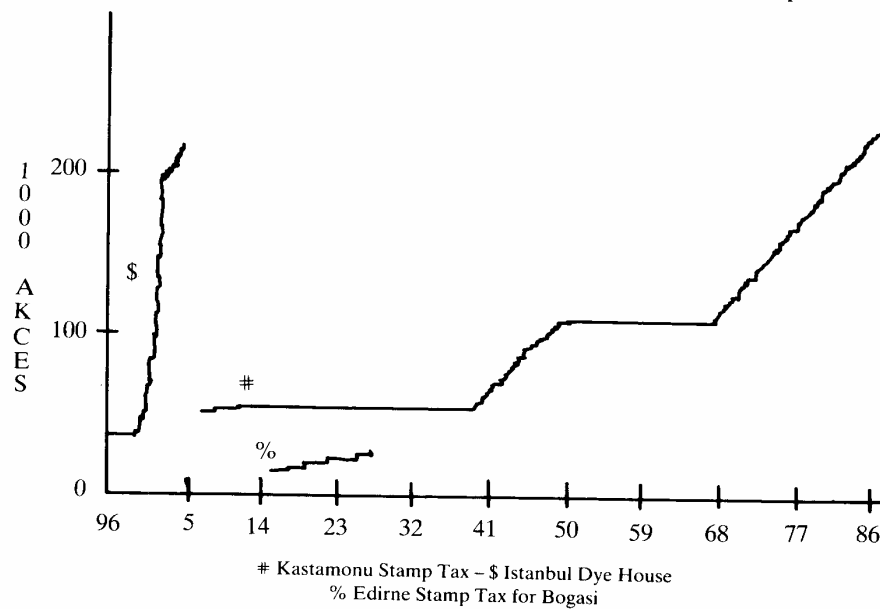


Figure 5. Cotton Cloth Sector 1596-1686

III Conclusion

With the rate of interest most definitely prohibited by Islam, Islamic economists have searched for an institution of resource allocation which does not need to utilize the interest rate. They came to the conclusion that this institution should be based upon the concepts of the rate of return and the opportunity cost. Last but not least, it was equally important that the new institution should not violate other teachings of Islam.

The main argument of this paper has been the suggestion that the institution of tax-farming, known in Medieval Egypt as *Daman-Qabala*, in Mughal India as *Ijara* and in the Ottoman empire as *Illizam-Malikane*, fulfilled these requirements to a great extent. Consequently, tax-farming dominated the life of the Muslims for more than one thousand years in a geographical dimension stretching from the Atlantic to the Indian Ocean.

What were the main advantages and disadvantages of this system? Let us first restate the advantages. The historical evidence presented above should make it clear that in all the states considered, but particularly in the Ottoman empire, it functioned as a highly rational and efficient system of resource allocation. The system, moreover, provided guidance for resource allocation not only to the tax-farmers as fully explained above, but also to the state. Since the bulk of the data presented in this article has been obtained from the records kept by the state, we can safely assert that the state was also well informed about the changing conjuncture in the economy as well as the relative profitability of each sector. This information, no doubt, played a considerable role behind the decision of the state to invest directly in the various industries (Cizakca, 1980b, pp. 145-147). Needless to say, all of this was achieved without any contribution by the rate of interest whatsoever.

Moreover, the tax-farming system was a very efficient revenue collector for the state. Actually it was precisely for this reason that it was applied originally. In passing, the reader is reminded that 23.16% of the total revenue of the Ottoman European provinces, 19.75% of the Anatolian provinces and finally 80% of Egypt was collected through the *Illizam* system in the 1527-28 financial year (Barkan, 1953).

Finally, the tax-farming system contributed substantially to the accumulation of capital in the private sector both by the massive profits it helped generate and by forcing the entrepreneurs to form partnerships and *sherkats* (Cizakca, 1980b, p.147 and Genc, p.239).

Naturally, the tax-farming system also had disadvantages. The most important one of these was the excessive exploitation of the *mukataa*, more specifically, the peasantry. Indeed, most historians agree that the peasantry was ruthlessly exploited in this system, a clear violation of Islamic principles. (Abu Yusuf, 1979, p.211). Yet it is clear that the unpredictability of tenure, the intervention of the military in the smooth functioning of the system, sub-taxfarming as well as absentee landlordism were the main reasons behind this.

Another major disadvantage, again caused by the unpredictability of tenure, was the lack of investment associated with the system. Surely, the auction prices depicted in the graphs in this article represent massive amounts of investment. But they were initial investments made with the purpose of obtaining the right to collect taxes in the name of the state for, usually, an unpredictable period. These investments were not in the nature of continuous outlays designed to improve the *mukataat*. Consequently, a deterioration of the *mukataat* over time did occur.

It was primarily with the purpose of solving these two problems i.e. the protection of the peasantry and ensuring continuous investment in the *mukataat* that the Ottomans launched the *Malikane* system in 1695.

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APPENDIX
DOCUMENTION

The data for the figures have been obtained from the following sources contained in the Prime Ministry Archives in Istanbul.

Abbreviations

MAD: Maliye Defterleri also known as the Maliye'den Mudevver (Finance Ministry Registers).

KK: Kamil Kepeci Collection.

TT or **TD:** Tapu Defterleri Collection.

ALEPPO

MAD 7146/192-195; 198-199, 200-203; MAD 9834/55; MAD 912/4; MAD 919/8; MAD 300/215; MAD 4383/71; MAD 5604/25 TD 279/62-161, 1-18; MAD 2706/17; MAD 7345/1; MAD 3781/10; MAD 7589/20-26; MAD 9829/25; MAD 6241/6; MAD 4397/37; MAD 4972/211-226; MAD 4972/136; MAD 993/6; MAD 9829/47; MAD 12795/14; MAD 22534/1; MAD 657/80; MAD 919/2.

ANKARA

MAD 3985/122; MAD 4088/42-44; MAD 4341/106.

BURSA

MAD 4689/2; MAD 311/2-21; KK 5270; KK 5158/34; MAD 18201/6-20; MAD 6897/?; MAD 5984/130- 133 also;

F. Dalsar; *Bursa 'da Ipekçilik* (Istanbul University Publ. No.856, 1960), pp.240, 270, 282, 345, 346.

EDIRNE

MAD 4357/109-254; MAD 589/65, MAD 2477/9, MAD 2957/84.

ERZURUM

TT 197/1-2; TT 468/20; MAD 4383/160-188; MAD 5604/36; **MAD** 15935/8; MAD 300/203-235; MAD 4444/26; MAD 3785/10-13; MAD 539/295; KK 2314/3; MAD 3185/8; MAD 615/70; MAD 3781/1.

ISTANBUL

MAD 19354/1; MAD 657/49; MAD 2710/7; MAD 3185/3; KK 2314/2; MAD 399/41-51.

KASTAMONU

MAD 915/4-98; KK 5158/17-50; MAD 3305/30; MAD 5270/29; MAD 1850/2-31; MAD 3985/98-107; MAD 5452/?; MAD 2874/47-53; MAD 398/39-76; MAD 5954/82; MAD 5984/130; MAD 16792/7.

MOREA

MAD 2518/129-97; MAD 461/49-50; MAD 3902/15; MAD 2477/77-136; MAD 624/24; MAD 4357/1- 240; MAD 3360/63; TD 884/276-491; MAD 624/36.

TOKAT

MAD 5655/5; MAD 5454/; MAD 5655/7; MAD 3785/17; MAD 1479/7-36; MAD 4383/228; MAD 4619/5-60; MAD 5597/71; MAD 657/102; TD 287/70-186; MAD 615/62; MAD 300/230; MAD 5604/38; MAD 4383/95-226; MAD 4619/2; MAD 5597/58; MAD 4397/52-60.

Notes

- (1) The debate was initiated at the International Seminar on the Monetary and Fiscal Economics of Islam held at Makkah, 7-12 Oct. 1978.
- (2) No soul knoweth what it will earn tomorrow, The Qur'an, (31:34).
- (3) Based upon A. Sandmo, (Zarqa, 1983, p.220).
- (4) See the discussion attached to (Zarqa, 1983, pp.238-246).
- (5) Based upon Modigliani and Miller, (Zarqa, 1983, p. 217).
- (6) It is difficult to agree with Professor Siddiqi when he carries his emphasis on the profit expectations to the extreme and argues;

"All valuations take place in the present which is the only real time. Valuation of things in past has no relevance, and valuation of things to come in the future is possible only through their significance being realized in the present." (Siddiqi, 1983, p.179).

Valuation of things in the past, surely, must have some influence upon the profit expectations as will be demonstrated below.

- (7) In the Ottoman empire each major religious community was considered a "nation".
- (8) Thus, the Ottoman *mokataa* registers, particularly the Ottoman Court Registers, constitute a most significant source for the study of *Mudarabah Musharakah* and other Islamic partnerships during the period 15th-20th centuries. See in this context; (Gerber, 1981).
- (9) If we consider each tax-farmer as a "firm" the point becomes quite clear.
- (10) The Morean records where Yasef is mentioned can be found in the following documents: MAD 4357/362 and MAD 4357/32. The Bursa records mentioning the same Yasef can be found in: MAD 7299/259, 264, 98, 267. These documents also mention "Kemal the Jew". This person can also be found in the Aleppo records: MAD 7589/20. "MAD" stands for: Finance Ministry Registers, Prime Ministry Archives (Istanbul).
- (11) This is a clear case of industrial decline. Thus Siddiqi's argument that "Each successful act of productive enterprise takes the society forward as its resources are transformed into objects of greater value" (Siddiqi, 1983, p. 179) does not always hold. Private rate of return need not necessarily coincide with the social rate of return. In such cases a policy of protection must be implemented so that these two coincide once again. The Ottomans failed to do this.

قبالة الخراج وتخصيص الموارد في المجتمعات الإسلامية الماضية

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المستخلص : كانت قبالة الخراج والضرائب عمومًا (وفيها يتكفل شخص بمجاية الخراج وإيراد نسبة منه أو مبلغ مقطوع إلى بيت المال)، تمارس في مصر في العصور الوسطى وفي الهند في العهد المغولي وفي الدولة العثمانية. وينظر البحث الحاضر إلى نظام القبالة كوسيلة لتخصيص الموارد في اقتصاد حال من الفائدة الربوية، وقد استخدم الباحث بيانات من السجلات التاريخية العثمانية لتحليل الكيفية التي يعمل بها هذا النظام، فالعطاءات التي يتقدم بها المتقبلون هي مؤشرات للدولة عن الربحية النسبية في القطاعات الاقتصادية المختلفة، كما يسترشد المتقبلون، عندما يتقدمون بعطاءاتهم للدولة، بمعدلات الأرباح المتوقعة في تلك القطاعات. وقد أدى تغير توقعات الأرباح إلى تغير اتجاه الموارد وتحويلها جغرافيًا وقطاعيًا. ويضع البحث الموضوع في إطار النقاش الجاري حاليًا حول تخصيص الموارد في اقتصاد لا ربوي إسلامي، كما يبين بعض الجوانب السلبية لنظام القبالة.