ENTREPRENEURSHIP IN CLASSICAL GREEK LITERATURE*
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THIS PAPER analyses the views of ancient Greek writers- on the role of the entrepreneur. Thompson (1982) shows that the "primitivist" view expressed by Finlay, Humphreys, and others, which minimized the importance of economic activity in ancient Greece (especially in Athens) and the various entrepreneurial activities exercised by the Athenians (Ibid. 53-4), was an extreme view. Although classical Greek authors did not primarily concern themselves with economic analysis, they recognized and described some economic activities as being clearly of an entrepreneurial nature.

The analytic approach which will be followed here is the same as in our earlier (1990b) article where it was stated that "For analytical purposes the entrepreneur is treated purely as an abstract type which is related to a fundamental economic activity. Moreover . . . the pure and non-pure entrepreneurial functions are properly distinguished . . . The non-pure entrepreneurial function is more or less a mixture of either capitalist-entrepreneur or labourer-entrepreneur functions. The role of pure entrepreneur is that which could stand alone in economic activity ... the capitalist-entrepreneur exercised a mixed role which basically rested on capital ownership, while the labourer-entrepreneur acted as a supplier of either a routine function which could be substituted for labour, or a special activity which could also be performed by a skilled labourer" (Karayiannis, 1990b: 245-6).

Although the ancient Greek economy cannot serve as an example of modern capitalism, some interesting views in regard to entrepreneurship are deduced mainly from the writings of men of affairs (particularly Xenophon and the orators). Since a description of the ancient economy is outside the scope of this paper, our analysis will concentrate on the role (second section) and characteristics (third section) of entrepreneurship as described by classical Greek authors. In the first section we examine the economic environment in which entrepreneurial activity took place.

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1. LIMITED ENTREPRENEURSHIP

Although profit and wealth seeking activity was dismissed by the Socratic philosophers as a minor aim of life, the economic strength of Athens resulted not only from her military power, but also from the economic activities of her citizens. To present a picture of entrepreneurial activity in ancient Greece and particularly in Athens it is necessary to discuss the environment in which it was exercised.

The institution that best characterized the ancient Greek economy (except in Sparta), was private ownership. The majority of the Greek writers supported it" on the grounds that:

(a) The owner "loves" his own things much more than other people's (Isocrates, Panegyricus, 76).

(b) The care, responsibility and work effort of the individual is increased by private ownership (Xenophon, Oeconomicus, ix.17, Symposium, viii, 15).
The majority of enterprises (mainly those in Athens) were small-scale, sole-proprietor endeavours run by the owner as a free citizen or freedman (or a metic, i.e. foreign ally) with the help of a few slaves (Xenophon, Memorabilia, III.vii.6: Lysias, On the Refusal of a Pension to the Invalid, 6: 19-20; Lycurgus, Against Leocratus, 58; Demosthenes, Against Meidias, 22). Such enterprises, as Xenophon notes, enabled the owner to provide for "not only himself and his family, but large herds of swine and cattle as well, and (he) has so much to spare that he often undertakes costly public duties" (Memorabilia, II.vii.6; brackets added). In addition, there were partnerships in which profits and losses were shared in accordance with the rate of capital supply of members (Hyperides, Euxenippus, 35; Aristotle, Eudemian Ethics, 1242b, 10-15, Nicomachean Ethics, II63a, 35-40, Politics, 1280a, 30-35). The majority of enterprises were found in agriculture, industry (i.e. crafts), trade and banking. Agriculture was considered to be the most honourable and productive enterprise (Xenophon, Oeconomicus, v.1-3; Plato, Laws, 889D; Demosthenes, On Organization, 30-1; pseudo-Aristotle, Oeconomica, 1343a, 25-30, 1343b, 1-5) on which the development of other arts and of the city-state itself depended (Xenophon, Oeconomicus, v.17). It was undertaken by artisans (Menander, Dyskolos, 325-335) and gentleman landlords, as e.g. Ischomachus in Xenophon's Oeconomicus.

In Athens the majority of freedmen and metics as well as some poor free citizens were engaged in owning, directing and working at small-scale industrial production or they offered their work for a wage. The philosophers drew distinctions in terms of knowledge, honour and social acceptability in the work done by free citizens in high or low level jobs. At first they distinguished between special and ordinary labour, attributing to the former special knowledge of the production process (Plato, Statesman, 259E-260A). Under special labour was included the manager and director of the production process and some other useful professions (architects, doctors, etc.). Ordinary labourers were those who did physical labour and those who were engaged in mechanical or ignoble arts (banausoi tech-nat). The philosophers regarded special labour as an honourable and proper activity for a free citizen while they dismissed ordinary labour (Xenophon, Oeconomicus, iv. 1-3, Memorabilia, H.viii.1-4; Plato, Kara-yannis, 1990a, 24-5; Aristotle, Eudemian Ethics, 1215a, 27-33, Rhetoric, 1367a, 30-33, Politics, 1254b, 15-25, 1277a, 40-45). Thus, many Greek authors suggested that free citizens be actively engaged in production activities as managers and directors and not be idle (Euripides, Hippolytus, 377-382; Xenophon, Memorabilia, II.vii. 7-8; Isocrates, Areopagiticus, 24, Busiris, 20; Demosthenes, Against Eubulides, 36, 45).

Trade was recognized to be a profit-seeking enterprise and was divided into wholesale and retail trade in terms of usefulness, fairness, profitability and risk-taking. Several authors justified wholesale trade as a useful and not dishonourable activity (Calhoun, 1926, 41, 52-3,55) on the following grounds:

(a) The volume, the variety and the quality of goods that circulate in a city are
increased (pseudo-Xenophon, *Constitution of the Athenians*, ii.6-7, 12-13).

(b) The market discrepancies between demand and supply in the different cities producing different kinds and volume of goods are diminished (Aristotle, *Politics*, 1257a, 15-30).

(c) The cost in searching for the goods demanded is decreased.5

On the other hand, they were not well disposed towards the retail trade (engaged in mostly by the metics) which they considered a useless activity that led to artificial increases in prices and profits (Xenophon, *Memorabilia*, III.vii.6; Isocrates, *To Nicocles*, 1; Lysias, *Against the Grain-Dealers*, 21).6 However, Plato recognized that retail trade activity functioning as a time-saving operation was useful for the city (*Republic*, 371 C-D; Gordon, 1975, 30). But he was against the behaviour of retailers whose exclusive goal was to profit by any means, fair or unfair, and declared that it should be exercised only by the foreigners and metics (Karayiannis, 1990a, 11-2).

Banking was another important business in the Athenian economy. There were banks which were profit-seeking enterprises (Demosthenes, *Against Stephanus*, 34-5), offering loans with interest (Lycurgus, *Against Leocrates*, 23) after contracts were signed (Lysias, *On the Property of Eraton: Against the Treasury*, 3). They changed money and received deposits (Isocrates, *Trapeziticus*, 2, 37).

Entrepreneurial activities were circumscribed by social, ethical and other considerations. Those were expressed mainly by the Socratic philosophers. The principle that the entrepreneur was motivated by profit was a well recognized one.7 In the works of Xenophon one can find references to the fact that the various activities of individuals (including economic activities) were for the most part directed by the motive of self-interest (*Memorabilia*, IH.ix.4), and that the seeking of profit was the driving force and the ultimate goal of enterprise:

"In other states (except for Sparta), I suppose, all men make as much money as they can. One is a farmer, another a shipowner, another a merchant, and others live by different handicrafts" (*Constitution of the Lacedaemonians*, vii.1; brackets added).

And, "For the outgoing expenses of the estate are not a penny less; but the work done is insufficient to show a profit on the expenditure; after that there's no need to wonder if the expected surplus is converted into a loss" (*Oeconomicus*, xx.21).

However, when this motive was uncontrolled and led individuals to an excessive accumulation of wealth, it was disapproved of by the philosophers. Their views on the significance and content of wealth and its consequences for the ethical and social status of the individual were as follows:

(a) The level of wealth and poverty is subjectively and not objectively determined (Xenophon, *Symposium*, iv.34-5; *Memorabilia*, IV.ii.37-8, *Oeconomicus*, ii.2-4; Plato, Karayiannis, 1990a, 27).

(b) The utility derived from wealth is ethically and socially measured. The utility of wealth is proportionally determined by its use in terms of man's virtues (Aristotle, *Nicomachean Ethics*, 1120a, 9-13), his moderate consumption (Plato, Karayiannis, 1990a, 28) and his altruism (Aristotle, *Politics*, 1263a, 30-5, 1263b, 5-15, *Rhetoric*, 1381a, 20-25, 1385a, 15-20).

(d) The primary and sole engagement of the individual with economic matters and profit seeking activities, would remove him, according to Plato (Karayiannis, 1990a, 7-8), from the real purpose of life which is the nurturing of mind, soul and body. Aristotle also emphasized that the profit motive was the main cause for the chrematistic or unnatural actions of individuals — as distinct from the natural economic actions — which are directed toward the unlimited accumulation of wealth (Politics, 1257b, 20-1258a). Moreover, he disapproved of all the actions of the "chrematisti-cally" activated individual which are directed toward such an aim through the discovery of new sources of wealth:

"for the money-maker has to consider whence money and property can be procured" (Politics, 1256a, 15-7). And, "The Life of Money-making is a constrained kind of life, and clearly wealth is not the Good we are in search of, for it is only good as being useful, a means of something else" (Nicomachean Ethics, 1096a, 5-10).

From the above we may conclude that economic matters were primarily related to ethical judgements, and that when the Greeks were speaking of the rate or the volume of profit they had in mind a moderate or ordinary one rather than the maximum. Or as Xenophon put it, the individual must be "covetous of gain in a moderate degree" (Oeconomicus, xii.16).

The emphasis that Greeks placed on the ethics of business put further limitations on entrepreneurship. As most of the Greeks regarded rich men — particularly those who suddenly became rich — with suspicion (Plato, Laws, 743 B-C; Aristophanes, Plutus, 95-100, 350-355), they stressed the ethically correct means of acquiring goods (Aristotle, Rhetoric, 136la, 22-4, Nicomachean Ethics, 1120a, 13-5). Business transactions and conduct were to be characterized by fairness and were to be in accordance with the prevailing market ethics. They condemned illegal and unfair profits and wealth (Euripides, Helen, 903-908; Xenophon, Hellenica, II.iv.40; Aristophanes, Plutus, 565-570, 750-5; Plato, Karayiannis, 1990a, 21; Hyperides, Euxenippus, 32,34; Isocrates, To Demonicus, 38, On the Peace, 31, 125, Nicocles or The Cyprians, 50) and used the term aischrokerdia (profiteering) to describe these actions. Aristotle stated that profiteering (Eudemian Ethics, 1232a, 10-15) characterizes those who are "trying as they do to get gain from wrong sources" (Nicomachean Ethics, 1122a, 10-15) and that it is indicative of the low ethical state both of the individual and of the city. Those who are seeking profits by illegal and unfair actions, or those "pirates (who) now call themselves purveyors" (Rhetoric, 1405a, 5-10; brackets added), must not be made socially acceptable. The Greeks considered certain actions as illegal and unfair: those of stealing, and not paying what was agreed to in a contract (Hyperides, Against Athenogenes, VI, 13, VII, 15; Aristotle, Nicomachean Ethics, Ii64a, 20-35), trespassing upon the land of others, (Aristotle, Rhetoric, 1374a, 5-20), "making profit out of what is petty or disgraceful, or out of the weak" (Ibid., 1383b, 25-30), and paying lower wages than were deserved:

"when taking away the product of the worker's toil they (i.e. some businessmen) maintained they were creating resources for the city, while on the contrary in this manner they were laying the foundations for a lack of economic resources in the future" (Hyperides, Euxenippus, 37; brackets added, my translation).

Another source of unfair profits was that of the monopolistic exploitation of
consumers, particularly by private enterprises. Lysias criticized the collusion of retail traders who behaved as monopsonists in buying corn at a low price and selling it, by becoming monopolists, at a higher price (Lysias, *Against the Grain-Dealers*, 5, 6-8, 12, 14-5, 17, 21).

On the other hand, the philosophers and orators recognized the following beneficial effects produced by profit-seeking activities:

(a) Under the above social and ethical constraints in the accumulation of wealth the art of money making "rids us of poverty" (Plato, Karayiannis, 1990a, 6), and that wealth is a useful thing for life (Aristotle, *Rhetoric*, 1360b, 15-20, 1363b, 15-20).

(b) Through the increase of the citizen's wealth the economic status of the city is also increased, as the rich are able to undertake more *leitourgies*.

(c) By seeking wealth the development of various arts is made possible (Aristophanes, *Plutus*, 160-162).

(d) Under the profit motive and through movements in the level of prices caused by changes in the level of demand or supply (Xenophon, *Cyrus Anabasis*, I.v.6, *Ways and Means*, iv.36) the market reaches an equilibrium (at an undetermined point, Gordon, 1975, 20) in regard to the number of enterprises and the supply of goods. Xenophon noted that when the rate of production and supply is increased while the demand remains the same, prices and of profits will decrease and capital and labour will move to other more profitable employments.¹¹

"An increase in the number of coppersmiths, for example, produces a fall in the price of copper work, and the coppersmiths retire from business. The same thing happens in the iron trade. Again, when corn and wine are abundant, the crops are cheap, and the profit derived from growing them disappears, so that many give up farming and set up as merchants or shopkeepers or money-lenders" (*Ways and Means*, iv.6).¹²

Despite the various positive effects of the profit motive, after the Peloponnesian War, as the economic ethics of the Athenians became less rigid") and some fortunes were accumulated through unfair and illegal actions, public opinion turned hostile toward rich men. As Isocrates put it:

"It occurs to me as I am speaking what a change has come over Athens: people nowadays do not look at things in the same way as those who lived in the city in former times. For, when I was a boy, wealth was regarded as a thing so secure as well as admirable that almost every one affected to own more property than he actually possessed, because he wanted to enjoy the standing which it gave. Now, on the other hand, a man has to be ready to defend himself against being rich as if it were the worst of crimes, and to keep on the alert if he is to avoid disaster" (*Antidosis*, 159-160).

The Greeks were hostile to monopoly but welcomed competition, following the argument of Hesiod (Aristotle, *Eudemian Ethics*, 1235a, 15-20) that rivalry or "the strife", between men of similar occupations, that is, "potter is potter's enemy, and, craftsman is craftsman's" is "a good friend to mortals" (Hesiod, *Works and Days*, 20-25; Gordon, 1970, 4). As is known, the economic function of the competitive market as is described in modern economic texts was absent or not well recognized by the ancient Greeks, not only
because of the philosophical orientation of their thinking and the low priority that they
gave to economic matters, but also because of state interference in the economic life
of the citizens. However, as Xenophon mentioned, in most of the civilized world there
were well-organized markets for goods (Cyrus Anabasis, II.iii. 27, VI.ii.8, VI.vi.3)\(^{14}\)
where metallic money was used as a measure of transactions and medium of exchange
(Karayiannis, 1991, 311, 314, n.9). The function of those markets, as recognized by
Xenophon and Isocrates (see n.5) was to supply consumption goods in a specific place
to save buyers the time in searching for the goods (Oeconomicus, vii.22, Cyropaedia,
IV.v.42).

2. THE ENTREPRENEURIAL FUNCTION

The ethical, social, legal and economic limits imposed on ancient Greek society ruled
out the role of the entrepreneur as the dynamic and energetic force in economic
activity which has proved so fruitful during more recent times. The entrepreneur
played a more conservative role which tended more towards the preservation than the
accumulation of wealth. Nevertheless, the writers of the period recognized some of
the functions of entrepreneurship which were also noted in the pre-classical and early
classical economic literature.\(^{15}\) What they said could be best shown by dividing the
production activities of economic man into those of the pure capitalist, capitalist-
entrepreneur and labourer-entrepreneur.

The majority of the Greek authors were against the idle rich who spent their wealth
and enjoyed a luxurious life (Xenophon, Oeconomicus, 1.16; Aeschines, Against
Timarchus, 30, 42, 105; Isocrates, To Demonicis, 9; Demosthenes, For Phonnio, 45,
53). On the other hand, they stressed the usefulness of those who make investments in
order to increase production, their own economic strength and that of their city
(Aeschines, Against Timarchus, 153; Hyperides, Euxenippus, 36; Demosthenes, For
Phormio, 8-9, 42, Against Nausimachus, 25-6). The usefulness of investment was
recognized by Xenophon who proposed that the city, in order to increase its revenue,
must act like a capitalist and entrepreneur (Trever, 1916, 75). By advancing the
argument that the volume of profits is proportional to the capital invested, that is, "a
man who saves on a small income can, I suppose, very easily show a large surplus
with a large one" (Oeconomicus, ii.10), he proposed to his fellow citizens the
formation of a capital stock and its investment in some profitable activities and
enterprises.\(^{16}\) Moreover, in Lysias's oration Against Diogeiton (23) it is suggested
that capital must not be idly

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- but employed or lent for productive activities, while in Isocrates's
Areopagiticus (32, 44) the city is advised to offer loans to the poor citizens in order to
start an agricultural or trade enterprise.

Under this favourable climate for investment some arguments were put forward in
favour of the pure capitalist. There were some rich citizens who preferred to act as
capitalists by supplying their capital under some well-arranged contracts in regard to
the safety of their capital and the rate of the interest received.\(^{17}\) According to
evidence from the orations, these rich citizens often preferred to lend to maritime
enterprises or in bottomry and mining enterprises, all of which yielded a higher rate of
interest (Lysias, Against Diogeiton, 6; Demosthenes, Against Pantaenetus, 4, 28,
Against Boeotus, 52) because of the higher risk.\(^{18}\) The main functions of the pure
capitalist were mentioned: the supply of capital for productive or trade purposes and
the function of risk-taking: 

(a) The usefulness of the former function is emphasized mainly in the advance of trade which was regarded as the main source (along with mining) of the wealth of Athens (Isocrates, Areopagiticus, 34-5; Demosthenes, Against Phormio, 51-2, Against Lacritus, 47, Against Dionysodorus, 50). In Against Dionysodorus there is a statement which clearly describes the usefulness of lending as a means of increasing the wealth of individuals and the city:

"I am a sharer in this loan, men of the jury. We, who have engaged in the business of overseas trade and put our money in the hands of others, have come to know one thing very clearly: that in all respects the borrower has the best of us. He received the money in cash which was duly acknowledged, and has left us on a scrap of paper which he bought for a couple of coppers, his agreement to do the right thing. We on our part do not promise to give the money, we give it outright to the borrower. What, then, do we rely upon, and what security do we get when we risk our money? We rely upon you, men of the jury, and upon your laws, which ordain that all agreements into which a man voluntarily enters with another shall be valid" (1-2; emphasis added), w

(c) The second useful activity of the pure capitalist who lent money to merchants was that of risk-taking. The capitalist by lending money was assuming the following kinds of risk. First, by lending money to maritime and trading enterprises they ran the risk of the destruction of the ship and the loss of the traded goods which was offered as a pledge (Demosthenes, Against Zenothemis, 5, Against Phormio, 2, 8-10, 22, Against Dionysodorus, 32).20)

Thus, by lending their money to those enterprises the capitalists asked for a rate of interest proportional to the risk assumed for the voyage of the ship, that is, the danger connected with its route (Demosthenes, Against Lacritus, 10). To decrease this kind of risk-taking the capitalists stipulated that the transported and traded goods were to serve as pledge for their loans (Hyperides, Against Demosthenes, XVII; Demosthenes, Against Lacritus, 3, 7, Against Zenothemis, 2, 12, Against Apaturius, 4) which must be double the value of the capital loan (Demosthenes, Against Lacritus, 18-9).

Second, the capitalists who lend money to others to invest in an enterprise run the risk of not getting back their money and interest being defrauded by the borrowers (Demosthenes, Against Phormio, 6-7, Against Lacritus, 22, 25, 42, Against Timotheus, 68). The city thus established various laws for the protection of the capitalist from his kind of additional risk-taking (Demosthenes, Against Phormio, 50). Some cases are mentioned where someone started or directed an enterprise without owning capital or other factors of production. There are the cases of people starting an enterprise with loans (Xenophon, Memorabilia, II.vii.11-2; Isocrates, Trapeziticus, 42; Demosthenes, Against Phormio, 6-7, 33-4); or by leasing an already established industrial enterprise (Demosthenes, Against Pantaenetus, 9, For Phormio, 4), or by taking land as a lease in establishing or advancing an agricultural enterprise (Lysias, Before the Areopagus, 9-10). In addition there are cases where various loans were given for productive and commercial purposes, more by individuals than by banks.21)

However, these were not usual cases as the majority of enterprises were started and advanced by someone who owned the capital. In other words, the capitalist-entrepreneur was the prevailing form of enterprise in the (mainly) Athenian economy.

We find evidence of the specific actions and activities of the capitalist-entrepreneur. We shall divide the main functions of entrepreneurship into A. active and B. passive.
The active functions include:
(i) the co-ordination of the factors of production (mainly labour), and the management, direction, control and superintendence of enterprise;
(ii) the search for discovering and exploiting of new profit opportunities; and
(iii) the conception of ideas that lead to the establishment of new type of market (mainly exchange) activities.

The passive role of the capitalist-entrepreneur is the assumption of the many risks that confront the enterprise.

We shall now look in some more detail at these functions and activities as they appear in classical Greek literature.

A. ACTIVE FUNCTIONS

(i) Factors of Production and Management
The first active role of the capitalist-entrepreneur is best described by Xenophon. By analyzing the proper economic actions, activities, pursuits and responsibilities of the head of the household Xenophon developed some interesting ideas "framed in terms of the individual decision-maker" (Lowry, 1987a, 47). He analysed the functions and activities of the central figure in the economy, the manager or administrator of the household, viewed more in terms of production than consumption. After dealing with the content and scope of "economy" he emphasized that every social agent acts as an entrepreneur-manager or as an administrator (Lowry, 1987a, ch. III) of the household, and is interested in the preservation and augmentation of the possessions of his household or enterprise, viz:
"the business of a good estate manager is to manage his own estate well" (Oeconomicus, 1.2), "Well now, we thought that estate management (oikonomia) is the name of a branch of knowledge, and this knowledge appeared to be that by which men can increase estates, and an estate (oikos) appeared to be identical with the total of one's property, and we said that property is that which is useful for supplying a livelihood, and useful things turned out to be all those things that one knows how to use" (.Ibid., vi.4-5; brackets added; see also Ibid., i.4-7). Using examples from military and agricultural activities, Xenophon described the following crucial actions of the capitalist-entrepreneur:
(1) He must select the most efficient and honest labourers (slaves included) for his household or enterprise (Xenophon, Oeconomicus, xii.3, ix.11).
(2) He must divide his labourers between different jobs (Xenophon, Oeconomicus, IV, 5-11; Constitution of the Lacedaemonians, xiii. 10-11) according to their abilities and knowledge, "For it is not easy to get workmen who are skilled in all the arts, nor is it possible to become an expert in them" (Xenophon, Oeconomicus, iv.1). Then, he must co-ordinate the various activities exercised by the labourers in the most efficient way and use effectively the existing productive goods (Xenophon, Oeconomicus, i.8-9, ii.ill-2). However, Xenophon does not go so far as to say that all these actions of the entrepreneur are aimed at the maximization of profits. He rather considered that these actions resulted in the efficient functioning of enterprise and the best performance of
labour.

(3) He must behave properly toward his slaves and labourers and convince them through his personal behaviour, industry and fairness to increase their efforts. In regard to the fairness of the master (entrepreneur), Xenophon mentions not only the then well-known argument that each man must receive according to his contribution but also shows its consequence on labour productivity and the "higher level of performance" (Lowry, 1987a, 66), viz:

"Now these are precisely the things that I do myself with a view to making men more obedient; but they are not the only lessons I give to those whom I want to appoint my bailiffs. I have other ways of helping them on. For the clothes that I must provide for my work-people and the shoes are not all alike. Some are better than others, some worse, in order that I may reward the better servant with the superior articles, and give the inferior things to the less deserving. For I think it is very disheartening to good servants, Socrates, when they see that they do all the work, and others who are not willing to work hard and run risks when need to be, get the same as they. For my part, then, I don't choose to put the deserving on a level with the worthless." (Oeconomicus, xiii. 10-12; emphasis added).

And, "So too in private industries, the man in authority — bailiff or manager — who can make the workers keen, industrious and persevering — he is the man who gives a lift to the business and swells the surplus" (Ibid., sxi.9).

(4) He must educate and train his labourers (pseudo-Aristotle, Oeconomica, 1344a, 20-30), particularly those who will occupy a responsible place in his household and enterprise (i.e. epitropon), everything about the process of production and its administration (Xenophon, Oeconomicus, vii.41). Xenophon held that the training of a slave must concentrate on increasing two things: his honesty (Ibid., ix. 12-3; xii. 3-4), and his knowledge of his employment, for "the greatest lesson to learn is how things ought to be done" (Ibid., xv.2). The rate of knowledge and human skill for production activities, as mentioned by Xenophon, determine the profitability of enterprise, viz:

"it is just this that makes rich men of those who understand it (i.e. agriculture), and condemns the ignorant to a life of penury, for all their toil" (Ibid., xv.3; brackets added; see also Cyropaedia, I.vi.5).

(5) One of the "specifics for getting rich", as Xenophon notes (Oeconomicus, xi.19), is for the owner and manager of the household or enterprise to supervise personally and to show excellent care for the various works done by his employers (slaves and labourers) (Ibid., xi.16; Menander, Dysokeles, 38-45; pseudo-Aristotle, Oeconomica, 1345a, 5-10).

(6) He sometimes keeps his own accounts (Hyperides, Against Athenogenes, IX, 19) though the usual practice was to do so through the employment of a well-trained slave. In this way he is able, based on past and present data, to estimate the value of his trained and untrained slaves in terms of the net profit derived from their work. (Aeschines, Against Timarchus, 97; Demosthenes, Against Aphobus, I, 821-2, 816; see also Thompson, 1982, 69). However, there is nothing here on which to base the conclusion that in those times the capitalist-entrepreneur was receiving information for his future strategies from the practice of accounting (Thompson, 1982, 76).

(7) He must supply the capital of the enterprise, i.e., slaves, the building and the raw materials (Thompson, 1982, 71). He must guarantee the timely inflow of raw materials for the enterprise (Xenophon, Oeconomicus, IV, 5-11; Demosthenes,
Against Aphobus, I. 823) and to support their slaves and labourers during the production process (Xenophon, *Cyropaedia*, I.vi.7; pseudo-Aristotle, *Oeconomica*, 1344a, 5-10).

If we translate the above activities into our terminology, the first three cases show the function of the pure entrepreneur as a co-ordinator, organiser and income distributor. The next three cases show the role of labourer-entrepreneur in managing and superintending the enterprise, while the last case shows the function of capitalist-entrepreneur.

The role of the manager was not exercised solely by the owner. There were some cases where certain slaves were trained by their master (Demosthenes, *Against Stephanus*, 71-2) for the direction and management of his enterprise (Isocrates, *Trapeziticus*, 12; Demosthenes, *For Phormio*, 30). Xenophon recognized that the role of the manager could be performed by a hired labourer. He proposed that the individual who processes the art of economy — a good entrepreneur in managing and directing the enterprise — is able to offer his knowledge for a money reward:

Anyone who understands carpentry can do for another exactly the same work as he does for himself; and so, I presume, can a good estate manager" (*Oeconomicus*, 1.3-4).

ii) Profit Opportunities

The second active role of the capitalist-entrepreneur appears in trade activity. The wholesale trader tried to discover and exploit the most profitable profit opportunity (Karayiannis, 1987, 17). By seeking profit (Lycurgus, *Against Leocrates*, 26-7, 57) he offers the necessary capital (Thompson, 1982, 65-6) and tries to gather information about the various discrepancies between the supply of and demand for specific goods in order to exploit for his benefit the existing differences of prices in different markets (Demosthenes, *Against Dionysodorus*, 8-10, 25). Those wholesale traders tried to sell the goods at higher prices than they bought them (Demosthenes, *Against Zenothemis*, 25), or to transport and trade goods to places where the demand is higher than the place of production (Demosthenes, *Against Lacritus*, 11, 23). Xenophon gave a fair description of this activity:

'So deep is their (i.e. the merchants') love of corn that on receiving reports that it is abundant anywhere, merchants will voyage in quest of it: they will cross the Aegean, the Euxine, the Sicilian sea; and when they have got is much as possible, they carry it over the sea, and they actually stow it in the very ship in which they sail themselves. And when they want money, they don't throw the corn away anywhere haphazardly, but they carry it to the place where they hear that corn is most valued and the people prize it most high, and deliver it to them there" (*Oeconomicus*, xx.27-8; brackets and emphasis added).

However, there is no document in the literature that shows the usefulness of the "arbitrageur" function of the entrepreneur which was recently developed by Kirzner (Karayiannis, 1990b, 258).

iii) Conception of Ideas

The third energetic role exercised by the entrepreneur is the exploitation of "the first idea" in making profits. This role is described in the writings of Xenophon and Aristotle. Xenophon, in *Oeconomicus* describes the entrepreneurial activity of Ischomachus's father (Singer, 1958, 45) who, having a special knowledge of the
agricultural production, used it to buy uncultivated land in order to exploit its possible increasing returns and then to re-sell it at a higher value. Moreover, he makes it clear that the

success of business increases the utility derived by the entrepreneur who was personally engaged in it. As he noted:

"For he (Ischomachus's father) never allowed me (i.e. Ischomachus) to buy a piece of land that was well farmed; but pressed me to buy any that was uncultivated and unplanted owing to the owner's neglect or incapacity. Well farmed land, he would say, costs a large sum and can't be improved; and he held that where there is no room for improvement there is not much pleasure to be got from the land: landed estate and livestock must be continually coming on to give the fullest measure of satisfaction. Now nothing improves more than a farm that is being transformed from a wilderness into fruitful fields. I assure you, Socrates, that we have often added a hundredfold to the value of a farm" (Economicus, xx.22-24; emphasis and brackets added). And,

"—— Now on hearing this I (Socrates) asked, Did your father keep all the farms that he cultivated, Ischomachus, or did he sell when he could get a good price?
—— He sold, of course, answered Ischomachus, but, you see, owing to his industrious habits, he would promptly buy another that was out of cultivation" (Ibid., xx.26; brackets added).

A similar entrepreneurial function is mentioned by Aristotle who nevertheless argued against, the "chrematistic" actions of individuals. He described the cases of the philosopher Thales the Milesian and of a banker in Syracuse where the former by his knowledge of astrology and the latter by his capital, acted as monopsonists when the demand for goods was very low (olive-presses, iron ore) and when the demand increased they acted as monopolists in selling the goods at a much higher price. Thus, they could earn high profits derived from the differences in the price levels of goods when they were bought and sold, viz:

"There is the anecdote of Thales the Milesian and his financial device, which involves a principle of universal application, . . . he knew by his skill in the stars while it was yet winter that there would be a great harvest of olives in the coming year; so, having a little capital, he gave earnest-money for the use of all the olive-presses in Chios and Miletus, which he hired at a low price because no one bid against him. When the harvest time came, and many wanted them all at once and of a sudden, he let them out at any rate which he pleased, and made a quantity of money. . . . There was a man of Sicily, who, having money deposited with him, bought up all the iron from the iron mines; afterwards, when the merchants from their various markets came to buy, he was the only seller, and without much increasing the price has gained 200 per cent . . . He had the same idea as Thales; they both contrived to create a monopoly for themselves." (Politics, 1259a, 5-30; emphasis added).

Aristotle here describes two different functions, those of the pure entrepreneur who has the first idea because of special information and knowledge, and that of the capitalist-entrepreneur whose money enables him to establish a monopoly (Karayiannis, 1987, 28-3D- Aristotle opposed monopoly but he mentioned these two examples to show that there are ways for someone to increase his wealth if he is "chrematistically" inclined.

Innovative activity was not recognized by the Greek authors as a significant
entrepreneurial function. They did not regard the mechanical or vulgar arts a noble occupation for free citizens (Burford, 1972, 58; Gordon, 1975, 33; Lowry, 1987a, 54, 269, n.23). While Xenophon recognized the possibility of innovations and its consequences to the rate of profit, he did not give it much attention. He regarded the difference of profitability in Farming as not attributed to different production methods, but to the entrepreneur's personal characteristics and behaviour.

'It is not the farmers reputed to have made some clever discovery in agriculture who differ in fortune from others: it is things of this sort (i.e. knowledge, skill, etc.) that make all the difference" (\textit{Oeconomicus}, xx.5; brackets added).

\section*{B. PASSIVE FUNCTIONS}

The passive role of the capitalist-entrepreneur recognized by the Greeks was that of bearing the various risks involved in an enterprise. Xenophon was aware of the uncertainty that accompanied most economic actions:

'To pray for gold or silver or sovereignty or any other such thing, was just like praying for a gamble or a fight or anything of which the result is obvi-Dusly uncertain" (\textit{Memorabilia}, I.iii.2).

He mentioned that one of the distinguishing roles of the capitalist-entrepreneur was that of bearing the consequences of uncertainty in mining enterprises. As he was well aware that most of the capitalist-

entrepreneurs engaged in mining had a risk aversion that diminished the rate of investment in such enterprises, he suggested the establishment of a company for the sharing of risks and profits (Houmanidis, 1979, 32).\textsuperscript{36} In his own words:

"And, mark you, it is as possible now to open new veins as in former times. Nor can one say with any certainty whether the ore is more plentiful in the area already under work or in the unexplored tracts. Then why, it may be asked, are fewer new cuttings made nowadays than formerly? Simply because those interested in the mines are poorer. For operations have only lately been resumed, and a man who makes a new cutting incurs a serious risk. If he strikes good stuff he makes a fortune; but if he is disappointed, he loses the money he has spent. Therefore people nowadays are very chary of taking such a risk.

However, I think, I can meet this difficulty too, and suggest a plan that will make the opening of new cuttings a perfectly safe undertaking" (\textit{Ways and Means}, iv.27-30).

"Of course, private individuals also are able to combine on this principle and pool their fortunes in order to diminish the risk" (\textit{Ibid.}, iv. 32).

The orators also referred to the entrepreneur as having the sole responsibility for his enterprise. More specifically, Demosthenes compared two enterprises (a bank and a shield-making industry) in which the rate of profit and the volume of risk differed, and where an entrepreneur with a strong risk aversion preferred the lower rate of profits and risks of the shield-making industry (\textit{Against Phormio}, 11). Mention was also made of the bearing of risks by a wholesale trader who risked his capital and labour in the transportation of goods (Lysias, \textit{Against Diogeiton}, 25).\textsuperscript{35}

Some entrepreneurial activities have a profitable result while others do not. Although the Greeks recognized the factor of fortune (Aristotle, \textit{Eudemian Ethics}, 1247b, 1-10), they put more emphasis on the various properties and skills of the individual (see below) as the decisive factor for the profitability of enterprise.
3. THE SUCCESSFUL ENTREPRENEUR

In ancient times the middle (economic) class was considered the most useful to the city-state (Euripides, *Suppliant Women*, 238-245; Aristotle, *Politics*, 1295b, 30-40). In this class was included the successful capitalist-

entrepreneur, who could boast a good social reputation only when he had shown honesty and industry in his business (Demosthenes, *Against Phormio*, 43-4). However, a distinction was made between successful and efficient and unsuccessful and inefficient entrepreneurs (Demosthenes, *Against Phormio*, 51) and Xenophon in *Oeconomicus* (vi. 11, xx. 1) investigated the reasons why some agricultural enterprises had a surplus and others a deficit. Then Xenophon described the necessary and proper actions required from someone to be a successful entrepreneur. Drawing a parallel between the successful household manager and the army commander, he said that if the latter wanted to be a good leader he must follow the example of the household manager (*Memorabilia*, III, iv. 11). The successful head of a household was one who, in order to make a surplus or profit, tries always to buy at the lowest possible price.

"Good householders, you know, say that the right time to buy is when a valuable article can be bought at a low price" (*Memorabilia*, H.x.4).

The characteristics of an efficient and successful entrepreneur, or a "good economist" as he is labelled in the literature, are the following:

*First*, he must have adequate knowledge and experience for a proper administration and use of his possessions (Plato, Karayiannis, 1990a, 6; Isocrates, *Antidosis*, 187-9; Aristotle, *Politics*, 1258b, 15-25), or as Xenophon put it:

"some men spend large sums in building houses that are useless, while others build houses perfect in all respects for much less? Will you think that I am putting before you one of the operations that constitute estate management? Yes, certainly" (*Oeconomicus*, iii.1-3).

Aristotle argued that the success of the "chrematistically" acting individual depended on his experience and on the art of making money (*Politics*, 1257a, 1-5), thus, "men learned by experience whence and by what exchanges the greatest profit might be made" (*Ibid.*, 1257b, 1-10).

*Second*, he must give personal attention to the control of the enterprise. Xenophon especially emphasized the importance of personal care and attention on the part of the entrepreneur: the extent of the attention and knowledge of the leader of a household, enterprise, army, etc., stood in direct proportion to the degree of success or failure (*Oeconomicus*, xx. 2-3, 13-16, *Memorabilia*, III.iii.9, *Cyropaedia*, I.vi.23). Under the dictum

"diligence is profitable" (*Oeconomicus*, xii. 15), he noted that, "if you want land to yield you fruits in abundance, you must cultivate that land; if you are resolved to get wealth from flocks, you must care for those flocks" (*Memorabilia*, II.i.28). He continued:

"to undertake such duties as you can perform and beware of any that are too much for you, and, whatever you do, to give of your best and put your heart into the business" (*Ibid.*, H.viii.6).

*Third*, he must be efficient in the organization and control of his enterprise
(Xenophon, *Oeconomicus*, xx. 16-8; Aristotle, *Eudemian Ethics*, 1247a, 25-35). The efficiency of the organizer and director of a work done is proved when the maximum product is attained with the minimum cost or effort. Such a case is mentioned in Xenophon's *Symposium* (see also Lowry, 1987a, 81) where Socrates observes to the Syracusean impresario of dancing girls:

"Sir, it is quite probable that, to use your words, I am indeed a thinker; at any rate, I am now considering how it might be possible for this lad of yours and this maid to exert as little effort as may be, and at the same time give us the greatest possible amount of pleasure in watching them, -this being your purpose, also, I am sure" (*Symposium*, VII, 2; emphasis added).

Fourth, the leader of the household or enterprise through his good character and conduct must provide an example to his slaves and labourers, (Xenophon, *Oeconomicus*, xii. 19) and treat them with intelligence:

"but I grant you, Socrates, that in respect of aptitude for command, which is common to all forms of business alike — agriculture, politics, estate-management, warfare — in that respect the intelligence shown by different classes of men varies greatly" (*Ibid.*, xxi.2).

In the pseudo-Aristotle *Oeconomica* we have the following two statements in which are recorded most of the above-mentioned actions and characteristics of a successful household manager or entrepreneur:

"Right administration of a household demands in the first place familiarity with the sphere of one's action; in the second place, good natural endowments; and in the third, an upright and industrious way of life. For the lack of any one of these qualifications will involve many a failure in the task one takes in hand" (1345b, 5-12). And, "There are four qualities which the head of a household must possess in dealing with his property. Firstly, he must have the faculty of acquiring, and secondly that of preserving what he has acquired; . . . Thirdly and fourthly, he must know how to improve his property, and how to make use of it; since these are the ends for which the powers of acquisition and of preservation are sought" (1344b, 20-30).

For the Greek authors, success in business was determined by the personal actions and characteristics of the entrepreneur and in particular by his knowledge, efficiency, special labour and character.

4. CONCLUSION

A systematic treatment of entrepreneurship was first done in the last century. However, many other authors on social matters recognized elements which distinguished the role of the entrepreneur from that of the ordinary labourer. Those elements we have tried to extract from ancient Greek literature. Entrepreneurship in those far-off days was not motivated by the modern capitalistic spirit nor was the market process similar to that of modern times.

Entrepreneurial activity was limited not only by the "primitiveness of the economy" and state interference in economic life but also by the philosophical and ethical limits imposed on it. The philosophers taught that the acquisition of wealth, despite its importance in everyday life, was regarded as the least desirable objective of free citizens. The insatiable desire for wealth was condemned as a cause of unfairness, injustice and unequal distribution of wealth — situations contained the potential of a
class struggle in the city. The actions of individuals should not concentrate on economic matters only, and entrepreneurs should not aim at a maximum but only at moderate profits. In the final analysis, the profit-seeking activities of individuals were judged in terms of their social acceptability and fairness. On the other hand, the ideas held by the Greeks (particularly Xenophon and the orators) on the subject of entrepreneurship are still valid today; so are those related to management, the assumption of risk and the search for the most profitable investment of assets.

FOOTNOTES

1. With the exception of course, of Plato who in his first ideal city or "the city of the sons of gods" stressed the abolition of property in order to eliminate the class struggle and conflict (Republic, 464D)—a suggestion strictly criticized by Aristotle (Politics: 1261a, 20-25; 1262b, 5-10, 25-30). However, Plato in his second-best framework for the establishment of the city in-

produced private property within limits (Laws, 737B; 745D). Further, Aristotle mentioned and criticized the system of equal property suggested by Faleas of Chalkidon (Politics, 1266a, 40-45, 1266b, 20-35).

2. Aristotle considered that the necessary occupations for the city are those of artisans, craftsmen (for the production of necessary and luxury goods), and merchants (wholesale and retail merchants) (Politics, 1291a, 1-10).

3. Aristotle distinguished the types of trade "by sea, ... by land, . . . selling in shops" in terms of profitability and risktaking, (Politics, 1258b, 25-30). Lewis (1978) gives an excellent analysis, following Aristotelian thought, of the various forms of relationship between the acquisition of goods and property and the rate of anxiety it produced or the uncertainty to which it gave rise.

4. The wholesale trade in corn was — especially for the Athenians — of vital importance for the nourishment of the city (Isocrates, To Demonicus, 19; Lysias, Against the Grain-Dealers, 21, Against Diogeiton, 4). The Athenians, moreover, recognizing that by trade activity the revenues of the city were increased, attempted to stimulate trade through legislation to protect the merchants from illegal and unfair actions (Demosthenes, Against Apaturius, 1).

5. In Isocrates Panegyricus we find the most representative statement on the benefits accruing from wholesale trade, viz:

"since the different populations did not in any case possess a country that was self-sufficing, each lacking in some things and producing others in excess of their needs, and since they were greatly at a loss where they should dispose of their surplus and whence they should import what they lacked, in these difficulties also our city (i.e. Athens) came to the rescue; for she established the Piraeus as a market in the center of Hellas — a market of such abundance that the articles which it is difficult to get, one here, one there, from the rest of the world, all these it is easy to procure from Athens" (Panegyricus, 42; brackets added).

6. Lysias notes that the economic interest of the retail traders (especially the grain-dealers) were contrary to the general interest (Against the Grain-Dealers, 13). Thus, the Athenians, in order to diminish speculation in the trade of corn, regulated its price through a special service, the market controllers (Aristotle, The Athenian Constitution, LI, 2-3).

7. The ancient Greeks believed that the god Hermes helped individuals to make
profits and acquire wealth (Aristophanes, Frogs, 1144-1145).

8. The following statement of Aristotle is characteristic in showing the main pursuit of individuals who are motivated in seeking profit through "chrematistic" actions: "The origin of this disposition in men is that they are intent upon living only, and not upon living well; and, as their desires are unlimited, they also desire that the means of gratifying them should be without limit. Even those who aim at a good life seek the means of obtaining bodily pleasures; and, since the enjoyment of these appears to depend on property, they are absorbed in making money; and so there arises the second species of money-making. For, as their enjoyment is in excess, they seek an art which produces the excess of enjoyment; and, if they are not able to supply their pleasures by the art of money-making, they try other arts, using in turn every faculty in a manner contrary to nature . . . some men turn every quality or an into a means of making money; this they conceive to be the end, and to the promotion of the end all things must contribute"(Aristotle, Politics, 1258a, 1-10; emphasis added).

9. However, in the pseudo-Aristotle Oeconomica (1350b, 30-35) we found a case of

monopoly established by the permission of the state, and also a proposal to establish a state monopoly of slaves as a means of increasing the revenue of the city G353a, 15-20).

10. To the Greeks those men who had become rich by their own labour and exertion deserved a higher social reputation than others who had inherited their wealth (Isocrates, Antidosis, 146; Demosthenes, For Phormio, 43).

11. Demosthenes in Against Phaenippus (20-1, 3D, referred to the case of differential profits between different enterprises (agriculture, mining) caused by changes in the prices of output. Some orators considered the moving of labour from one employment to another difficult, because of the lack of experience and knowledge of the new production activity (Hyperides, Athenogenes, XII, 26; Lycurgus, Against Leocratus, 58).

12. Xenophon, says that this will not happen in mining because the demand for silver ore will increase at the same rate as the supply, leaving the price of silver unchanged (Ways and Means, iv.6, iv.8-11).

13. After the Peloponnesian War the attitude of Greeks on economic matters changed substantially. They became more active economically and their hostility toward the labour of citizens diminished (see the comments of Singer, 1958, 44; Calhoun, 1926, 15-6; Humphreys, 1978, 148-9; Higgins, 1977, 129). On the other hand, as Xenophon noted in his pamphlet The Constitutions of the Lacedaemonians (xiv. 3-6) the Spartans, which up till then had dismissed economic pursuits of the citizens, following the laws of Lycurgus (Ibid, vii. 2-6), after the Peloponnesian War started to seek money, wealth and a luxurious life. Aristophanes also commented that in his age honesty among individuals had disappeared (Plutus, 362-3).

14. Xenophon (Cyropaedia, I.ii.3) and Aristotle (Politics, 13331a, 30-1331b, 3) suggested the eparation of the market of goods from the market (agora) where the citizens gather and communicate, on the grounds that in the first market base actions were taking place, while he second peformed a very important political task, that is, the function of democracy.

15. In the pre-capitalistic period a variety of writers, although they did not use exact economic terminology, attributed to the head of an enterprise specific fundamental actions which distinguished him from the roles played by the other economic agents (Karayiannis, 1990b, 47-8).
16. Xenophon proposed that the city must be operated as a rentier capitalist or a capitalist-entrepreneur, or both. He recommended the gathering of public capital and its use for lending to businessmen at the market rate of interest (Ways and Means, II, 9-10), or in buying slaves who would be leased to the citizens and the businessmen (Ibid., IV, 17-22). In addition, he proposed that the city must be more active in using its funds for searching for and exploiting the mines of Laurion in Attica (Ibid., IV, 1, 30-3D, or for the construction of hotels, markets, lips etc., which would be leased to the citizens or exploited by the city (Ibid., II, 12-14).

17. Plato and Aristotle condemned the lending of money at interest — the former from the point of view that such a reward was a cause of injustice, corruption and struggle in the city Karayiannis, 1990a, 26-7), the latter through his theory of the barrenness of money (Politics, 258b, 1-10).

18. Another activity of those rich capitalists was to undertake the collection of public taxes at the west possible rate (Andokides, On the Mysteries, 133; Lycurgus, Against Leocratus, 19; Demosthenes, Against Timocrates, 40). Their activities as tax collectors were not considered a respectable one for free citizens, not only because it was not a productive employment of their capital, but also because it was regarded as an immoral one (Theopharastus, Characters, VI,5).

19. A similar argument on behalf of the lending activity was put forward also by Hyperides (Euxenippus, 37) Also, in pseudo- Aristotle's Oeconomica (1349a, 4-9) the lending activity for production purposes as a source for the increase of individual and city wealth is mentioned. On the other hand, the loans at interest given for consumption purposes were considered by the Athenians an immoral practice which caused misery to the borrowers (Aristophanes, Clouds, 240-1, 720-730, 1155-115), 1224-1225).

20. Thompson (1982, 66-7) observes that "There is nothing to suggest that he (the merchant who retired from the sea) did so because he had lost his spirit of enterprise, for he did not turn to safe investments . . . Instead the employed his savings in naval loans, even to the point of leveraging his risk". One case of such a merchant is mentioned in Demosthenes's (Against Pantaenetus, 54).

21. Thompson (1982, 81, n.) gives a list of eight different kinds of loan for productive and commercial purposes.

22. In Demosthenes's Against Aphobus, (I, 815-817) is clearly mentioned that the raw materials and the slaves were the productive capital of the enterprise which was owned by the capitalist-entrepreneur. Aristotle, separating the content of wealth and property in production and consumption goods, notes that:

"Property that is productive is more useful, but that which has enjoyment for its object is more liberal. By productive I mean that which is a source of income, by enjoyable that which offers no advantage beyond the use of it" (Rhetoric, 186la, 10-22).

23. Xenophon uses as an example of good organization, management, administration and control, that exercised by the queen bee. He mentions that the leader of the household must organize and control the work done by his slaves and labourers and then distribute among them a part of the product as the queen bee does (Oeconomicus, vii.32-4). Also, by stressing the similarities between the arts of household management and that of ruling and directing an army, a city, and an empire, he described the actions of a successful or good leader and administrator (Ibid., iv.5-7, Cyropaedia, VI.ii, VIII.i.9-15). Similarly, Plato considered economy to be the art of
household management, which is as teachable as the royal and political arts (Trever, 1916, 63; Karayiannis, 1990, 6). On the other hand, Aristotle (Politics, 1252a, 8-20) criticized the idea that the roles of the king and the manager of the household are similar.

24. Gordon observes that, "The household was not just an organization of consumers, and the word economy itself designate household management. When the Greeks thought of such management they had in mind a wide range of micro-economic considerations" (1975, 16).

25. As Lowry (1987b, 12) comments: "The Greek art of oikonomia, a formal, administrative an directed toward the minimization of costs and the maximization of returns, had as its prime aim the efficient management of resources for the achievement of desired objectives. It was an administrative, not a market approach, to economic phenomena".

On the other hand, Campbell goes so far as to draw a parallel between Xenophon's and Marshall's definitions of "economy" He notes (1987, 33-4) that, "Xenophon's treatment of economics seems much closer to the old Marshallian concept which defines economics as concerned with the everyday business of life. Economics, or household management, as a practical art has to concern itself with the everyday administration of the things of the household".

26. By considering that the most noble engagements of the free citizens are those of the Farmer and soldier, Xenophon draws an interesting parallel between those activities exercised by the decision-maker, viz:

"Don't look down on businessmen, Nicomachides. For the management of private concerns differs only in point of number from that of public affairs. In other respects they are much alike, and particularly in this, that neither can be carried on without men, and the men employed in private and public transactions are the same. For those who take charge of public affairs employ just the same men when they attend to their own; and those who understand how to employ them are successful directors of public and private concerns, and those who do not, fail in both." (Memorabilia, III.iv.12)

27. Xenophon recognized that the first division of labour took place in the household with the separation of duties between man and woman, because of their different natural inclination (Oeconomicus, vii. 19-23). This division of labour and duties makes necessary the co-existence of men and women for the more efficient operation of the household (ibid., vii.30). In his most quoted passage on the division of labour in Cyropaedia (VIII.11.5) he stressed that with the division of labour the performance of the labourers is increased, and that the extent of this division depends on the extent of the market (see also Lowry, 1987a, 69-70). Xenophon was also well aware that there exists a sequence of arts for the production of an article (On the Cavalry Commander, vi. 1).

28. Xenophon in particular stressed that the increase of agricultural production was mainly the result of a proper organization of the factors of production and not their increase (Oeconomicus, iii. 1-3). This argument is related to the notions and consequences of the diminishing and increasing returns derived from the characteristics of natural resources, of which he was well aware. He considered agriculture to be mainly subject to diminishing returns (Ways and Means, iv.5; Houmanidis, 1979, 33) and mining subject to fixed or increasing returns (Ways and Means, iv.4; Lowry, 1987a, 63, 271, n. 42, 1987b, 14).

29. "But, Socrates, if the appearance of the master in the field, of the man who has the
fullest power to punish the bad and reward the strenuous workmen, makes no striking impression on the men at work, I for one cannot envy him. But if at sight of him they bestir themselves, and a spirit of determination and rivalry and eagerness to excel falls on every workman, then I should say: this man has a touch of the kingly nature in him. And this, in my judgment, is the greatest thing in every operation that makes any demand on the labour of men, and therefore in agriculture" (Xenophon, *Oeconomicus*, xii. 10-11).

30. Aristotle emphasized — as Euripides (*Hecuba*, 306-8) previously had done — that justice presupposes the reward of someone according to his useful contributions to the city and to other men (*Nicomachean Ethics*, 1125b, 25-30, 1132b, 30-35).

31. The modernity of this proposition has been noted by Lowry who comments that, "some recent economic studies have returned to this focus on the importance of the human variable in the economic process. Drawing lessons from America's best-run companies, one study advises entrepreneurs to treat people — not capital spending and automation — as the primary source of productivity gains" (1987a, 169, n. 17)

32. The suggestion that in order to increase the work effort of slaves the master must treat them properly and reward them according to their contributions was also mentioned in the pseudo-Aristotle *Oeconomica*, (1344a, 28-35; 1344b, 15-20).

33. Thompson (1982, 57,60) notes two cases derived from the literature of the period where a proprietor of a mine was not only working as a manager and superintendent but also with "his own body".

34. In the pseudo-Aristotle *Oeconomica* is mentioned that one of the fundamental activities of the capitalist-entrepreneur, "is the importance of keeping expenditure within the limits of revenue" (1346a, 15-7).

35. Xenophon notes: "the earth teaches righteousness to those who can learn; for the better she is served, the more good things she gives in return" (*Oeconomicus*, v.12).

36. In Demosthenes's *Against Phaenippus* (3) it is mentioned that the enterprise of mining is a risky activity and sometimes leads to a total loss. See also Thompson, 1982, 59.

37. Xenophon also pointed out the establishment of a *public company* in searching for new mines as another way of increasing investment in mining (*Ways and Means*, iv.30-1). However, he was somewhat suspicious of the efficiency of public enterprises: "But what may well excite surprise is that the state, being aware that many private individuals are making money out of her (i.e. land) does not imitate them" (*Ibid.*, iv.14; brackets added).

38. In the pseudo-Aristotle *Oeconomica*. (1344b, 28-32) the proper administration of productive and unproductive goods for the elimination of the various risks is also mentioned.

39. Xenophon notes: "For observing once that the same pursuits lead in one case to great poverty and in another to great riches, I was filled with amazement, and thought it worth while to consider what this could mean. And on consideration I found that these things happen quite naturally. For I saw that those who follow these pursuits carelessly suffer loss, and I discovered that those who devote themselves earnestly to them accomplish them more quickly, more easily and with more profit. I think that if you would elect to learn from these, you too with God's favour would turn out a clever man of business" (*Oeconomicus*, ii.17-8). And, "To write out all that he ought to do is no more possible than to know everything that is going to happen. The most
important of all my hints, I think, is this: Whatever you decide to be best, see that it gets done. Whether you are a farmer, a skipper or a commander, sound decisions bear no fruit unless you see to it that, with heaven's help, they are duly carried out" *(On the Cavalry Commander, ix.1-2)*.

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