

Hesiod's Place in the Economics Literature

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This paper aims at putting Hesiod's book, "Works and Days" where it belongs in the economics literature: at the beginning. There are many reasons why Hesiod's work has been ignored by economists which are discussed in this paper. Hesiod's work is examined from the lenses of economic theory, economic history and history of economic thought.

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Introduction

Hesiod is the first economic scholar in the world.¹ His book *Works and Days*,² written most probably in the latter part of the eighth century BCE, is considered here as the first world introductory textbook of economics. A textbook is a guidebook to be used for teaching purposes. It serves a didactic (educational) function. Hesiod's *Works and Days* served this educational purpose for centuries³ and should be considered as the first known author of such an economics textbook. It was written as an applied economics textbook in the form of a poem because, at the time (almost 3,000 years ago), this was the most efficient and most effective method of writing a textbook.⁴ However, as shown in this paper, Hesiod's applied

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¹Rothbard (1995, p. 8) wrote, "The honour of being the first Greek economic thinker goes to the poet Hesiod". Hesiod is the first known world economic thinker as well. Gordon (1975) started, quite appropriately, his book on the history of economic analysis with Hesiod. Many other academic papers consider Hesiod as an economist; see for example an early paper by Singer (1958). I agree with all of them. In addition, I argue that Hesiod's *Work and Days* is the first known economics textbook. Earlier, Teggart (1947, p. 45) claimed that, "Hesiod is the first of European authors: the first poet, the first writer on religious subjects, the first moralist, the first authority on the practice of agriculture". He considered Homer as a non-European because he was born in Asia Minor! Hesiod might have been all these, but he was foremost an economist.

²I discuss elsewhere this book in detail; see Papanikos (2022a).

³West (1988), in his introductory remarks of the translation of Hesiod's works, gives an excellent account of Hesiod's legacy throughout the centuries and the influence he has had during the Hellenistic and Roman period. Judging from some recent publications on Hesiod, I can argue that Hesiod still does have a great influence.

⁴On the poem versus prose issue, Beye (1972, p. 24) wrote, "The general critical position toward Hesiod's *Works and Days* is that the poem clumsily attempts to develop an idea, that this attempt is in part marred by the poet's incomplete control of his materials so that he introduces elements completely foreign to his main idea. The apology for this has generally been the observation that Hesiod was an early intellectual who was constrained to use poetry because the prose medium was not at hand. Had there been a developed prose, goes the argument, he would certainly have used that. If, however, one accepts the nature of the poem's constituents and the manner of progression from one to the next and also their combination, a coherent reading of the poem very naturally results". This coherent reading of the text has also a hidden economic structure.

economic analyses were based on sound theoretical premises that a contemporary economist would feel very comfortable with if they were translated using contemporary economic jargon. This is not an easy task because of Hesiod's masterful use of words make *Works and Days* a difficult text to translate into English, or even to adapt it to Modern Greek.

Using the usual economics jargon, I would argue that in Hesiod's times there was a "market failure" for the transfer of knowledge because writing had to be invented. Thus, knowledge had to be transferred in time and space only in a memorial form.⁵ The best way is indisputably by composing it in the form of a poem (rhythm or harmony as Aristotle would put it),⁶ which was long before Hesiod's time. Hesiod and Homer had taken advantage of the newly invented technology of writing by putting their masterpieces down in script form for the eternity to learn from and cherish. It is very similar to today's digitalization process of old and new books which maximizes the largest possible circulation and readership.

However, there existed another economic problem. The market of reading a book was still underdeveloped. As is the process of a child learning to speak, read and write, the same was true about the human race in an historical context. People learned how to speak first, then to read, and then some of them how to write. The last two cannot be done if writing is not invented. But even so, as is the case with many new technologies, it takes time to be absorbed and there will always be some people who will be technologically left behind, i.e., technologically illiterate. I have examined technological progress within the context of economic policy in Papanikos (1994).

In Hesiod's time, very few people could read and even fewer could afford to buy a "book" even as short as Hesiod's 828 lines (verses). Publishing a book in Hesiod's time could not benefit from economies of scale. Fortunately, Hesiod's textbook, using the memorial form, was almost costless; pretty much like the e-books today.⁷ It only required teachers and students with good memory, similar to today's memory sticks, which can store ("memorize") an e-book.⁸ Hesiod himself, in his *Works and Days*, used the word "μειμνημένος" many times (I counted seven) which can be translated as "memorized" or "put something in your mind". Not "read and learn," but "memorize and learn"!

We know from ancient sources that students of the classical Greek period had to recite the entire Homeric poems of *Iliad* and *Odyssey* by heart. In the archaic

⁵In Modern Greek there is a proverb that all school children learn: "repetition is the mother of knowledge". This is very old and comes from the story mentioned in Hesiod that Memory (Mnemosyne) is the mother of all nine Muses. The muses were the protectors of all knowledge: arts and sciences. And the only way to remember human knowledge is through memory.

⁶Mair (1908, p. vi), in his introduction to Hesiodic works, stated, "Poetry, accordingly, in the earliest times counted nothing common or unclean, but embraced the whole range of experience". I would add experience and knowledge, if the latter is not included in the former.

⁷Robb (1994) has called this an oral culture which remained for centuries even after the Greeks achieved alphabetic literacy. However, this was not the result of culture, but the result of many people being illiterate, i.e., they could not read.

⁸Of course, the memory of a stick and the memory of a human being are not the same. The memory of a human brain not only stores, but produces knowledge. The stick cannot produce new knowledge, at least up to now. Artificial intelligence is not new knowledge.

years, some of these teachers were called rhapsodists. Most probably, Hesiod himself had been one of them; going around on different occasions and festivities reciting various verses with the accompaniment of some musical instruments. I assume at a price, which Hesiod had never mentioned, but he did, however, make a reference to the competition between singers (“ᾄδοι”). What was this competition for? I guess it was for the best fee possible per performance. These singers and other artists were used in various private and public festivities. We know from Homer that during privately organized symposia artists were hired at a fee per performance. In ancient classical Athens, this fee was also regulated not to exceed a certain price. Hesiod offers no such information even though he did mention that there were clubs (“λέσχες”) which most probably offered some type of entertainment at a cost. I am sure Hesiod would command a high fee since, as he mentioned in the *Works and Days*, he had gotten first prize in a reciting contest on the island of Euboea.

On the other hand, the effectiveness was achieved by the use of stories, paradigms, allegories, fables, parables, and myths taken from the rich Greek mythology of the time, including Hesiod’s own outstanding cosmogony outlined in his book on *Theogony*. Even today, elementary school students can recall from their memory all the beautiful stories of Greek Mythology. As is the case with all stories, those of the *Works and Days* were relatively effortless to learn by heart. Some of these myths are really exceptional. They have had an everlasting effect on western thought and have fueled the imagination of many artists and writers, including the scripts of many movies and theater plays. In economics, such stories have been extensively used to teach introductory economics; the most famous of which is the Robinson Crusoe story, or more recently the story of the “helicopter money”.⁹ Both excite the fantasy of economics students. Hesiod’s book was made for the wider possible circulation and therefore all people could learn from it, even those who could not read. This was very important at the time because most people were illiterate, but, literally speaking, not deaf.¹⁰

Hesiod had a mission; all good pedagogues (teachers) and authors of textbooks do (or should) have at least one, apart from the obvious which is making a living. He wanted to make individuals and polities (societies) better.¹¹ He was a moral

⁹Many cynics would argue that the most eloquent myth in economics is the general equilibrium model or the model of perfect competition. This is not true though because these models are useful yardsticks to measure how far any reality (timeless and spaceless) is from what some economists think as best or optimal for the efficient and effective use of scarce resources. Hesiod had developed a similar yardstick, that of the Golden Race. Also, the model of perfect competition would suit very well the archaic economy of Hesiod’s times and space (geography).

¹⁰One should distinguish between illiteracy due to lack of opportunities and illiteracy due to lack of ability. I have met many people who were illiterate for many objective reasons (wars, extreme poverty of their family, etc.), but they had a tremendous ability to absorb new knowledge. Many such people thrived in peace years as businessmen, establishing and running their own successful small or large business much better if they had a Ph.D. in business administration from the best universities of the world. These people were auto-didactic. They learned by themselves. My belief is that Hesiod was one such a case, even though most probably, he had obtained a very good education from his father.

¹¹There is nothing wrong if the textbook writers make money as well. This is also an indication that their textbook is good. I am sure Hesiod made a lot of money by “selling” his textbook using the

philosopher pretty much like Adam Smith. His economics reveal that he had a meticulous knowledge of all the fundamental tenets of what today is called economic theory; economic analysis and economic policy, including a theory of economic history;¹² a theory of economic growth; a theory of utility and private wealth creation; a theory of production and productivity based on the division of labor, and many others.¹³ What differentiates his analysis from the contemporary¹⁴ economic analysis is economic jargon. For example, he did not use the word “marginal”, but other words which have the same meaning. In one verse [380] he used the word “ἐπιθήκη” to state his theory of the marginal effect on production by the use of additional workers (“πλεόνων”) which maximizes income and wealth, or in Hesiod’s economic jargon, “μείζων”. Here the word “ἐπιθήκη” can be translated as marginal, “πλεόνων” as additional and “μείζων” as maximum. The two last words are still used to denote the same meaning in contemporary Greek economic jargon.

Hesiod’s economic analyses had two purposes, which using today’s economics terminology, they can be called microeconomic and macroeconomic. Firstly, he wanted to teach business people (individuals) how they could themselves and their property become more productive and therefore maximize the accumulation of their private wealth (property), if this was what was wanted, or as Hesiod so expressively stated in advising his brother, “if your soul or heart crave wealth”. This is material wealth. Secondly, this individual economic prosperity can only be achieved if the basileis¹⁵ (kings and judges) promoted peace (stability) and justice. Thus, any individual and any ruler (government) knew by reading Hesiod’s textbook how individual and aggregate economic prosperity can be achieved: avoid wars and promote justice. The latter require good institutions. This is the essence of the didactic (textbook) nature of his book.

Economic prosperity was considered as a precondition for a good (happy) life, i.e., the enjoyment of leisure time with good and plenty of food, imported wine and going downtown (agora) to visit the entertaining clubs, as all these are mentioned in Hesiod’s *Works and Days*. Isn’t this what contemporary economics teaching is all about? In other words, individuals maximize a personal utility (happiness, or enjoyment, or eudemonic) function subject to an important constraint, which is the focus of Hesiod’s book: the amount of time devoted to work to generate material wealth (income), but at the cost of less leisure time.

distribution channels at the time such as in specific festivities and contests. We know from Odyssey that singers were used in at least two occasions of social gatherings.

¹²Hesiod’s contribution to economic history is examined in Papanikos (2022b).

¹³I do not examine these theories here but some of them are examined in other papers previously mentioned. The most important economic contribution by Hesiod was his clear statement of the economic problem, i.e., the issue of scarcity. Hesiod’s contribution to the economic notion of scarcity is examined in Papanikos (2022c).

¹⁴By “contemporary” I mean the economic analysis since Adam Smith. It is not chronological, but conceptual. It can also be called a textbook analysis.

¹⁵I use, as Hesiod did, the word basileis to mean the kings and judges who were responsible for providing the service of “ruling” people and “judging” differences between people, including economic differences such as the one Hesiod had with his brother Perses. Basileis can be also called archons and most probably in Hesiod’s period there were seven such archons located in the city of Thespies.

Why? Because the scarce means of life can be acquired only with work. The more time devoted to work, the higher the income (wealth) and therefore the higher the consumption, but the lower the time spent on leisure. This is the essence of Hesiod's economic analysis. A trade-off between leisure and work.

Thus, the purpose of this paper is to show that Hesiod has a strong place in economics because economic theories and analyses are explicitly stated in his book of *Works and Days*. Of course, I am familiar with the literature which argues that nothing of importance on economic analysis was developed by ancient Greeks for various reasons. This paper argues otherwise. It is claimed that nothing important of economic analysis was left out in Hesiod's *Works and Days*. On the other hand, I do not ignore some "popular" economics books and papers published in "prestigious" journals which critically and unfoundedly have cited Hesiod's economic work. Nevertheless, I consider all these as an important first step of introducing Hesiod's economic analyses to a wider scientific economic audience. These are examined in the next sections of this paper.

But first, I must make a few comments to clarify some points which are important in understanding why Hesiod is not, as he should be, at the beginning of the history of economic analysis. Unfortunately, many economists are not able to distinguish between economic jargon and substance,¹⁶ and this has also been affected by the English translations of Hesiod's works which have been done by non-economists and therefore they were unable to reveal Hesiod's important economic concepts and meanings.¹⁷ In this paper, I have translated myself the excerpts from the original text which is cited along with my English translation. In many cases, I discuss the meaning of some important words because their correct interpretations can disclose Hesiod's significant economic meaning. This is not a literary translation per se, but an expression of Hesiod's writings as these should be understood by economists.

Following Hesiod's autobiographical approach, I should state my own personal experience with Hesiod. I read Hesiod's work for the first time during my junior high school years despite the fact that he was not part of our formal high school curriculum. Homer dominated the curriculum. Many teachers mentioned Hesiod as another poet almost contemporary to Homer, but not as elegant as Homer. Since I prefer substance (Hesiod) to elegance (Homer), I became curious to see what Hesiod had to say. I was impressed by the deep pragmatic nature of his thought. Coming from a village similar to the one Hesiod was living, even though the two cosmoses (mine and his) differ by 3,000 years, it seemed to me that

¹⁶Many economists are lost if instead of the word "marginal," someone like Hesiod uses the word "additional" or "incremental". Hesiod used many different words and concepts to describe the same straightforward, marginal concept both for the marginal utility of consumption, marginal utility of income and the marginal productivity of factors of production.

¹⁷A philologist or a classicist when faced with a word which might have more than one meaning, chooses the one which fits better the poetic aspect of Hesiod work. I choose the one that has a sound economic meaning. There are many cases like this which this approach of translation of Hesiod's works can be applied. On this issue of how many translations can be done, I have published a case study of the first five verses of *Odyssey* (Papanikos 2021a) and how these have been translated into English (two translations) and how these have been adapted to Modern Greek (five such adaptations). I ended up with 5,760 choices; some are important and change the meaning, but others are trivial.

Hesiod's economics were at the heart of what he was observing. I never read an economics textbook so close to my own real economic childhood surroundings as in Hesiod's *Works and Days*. However, Hesiod went beyond this and stated fundamental economic truths (theories) and put forward a number of important verifiable hypotheses.

Even the Department of Economics in the Greek university where I studied economics completely ignored Hesiod, and from what I know all departments did not pay their due respect to Hesiod's rich economic analysis. About the same time as the beginnings of my undergraduate studies, Gordon (1975) published a book entitled *Economic Analysis Before Adam Smith: Hesiod to Lessius*. He correctly put Hesiod's work at the chronological beginning of any historical account of economic analysis. Earlier, Gordon (1963) had written a paper on the economic thought of Hesiod and Aristotle. In this article, Gordon correctly pointed out the importance of the concept of the "scarcity" in Hesiod's economic analysis which is comparable to Lionel Robbins' definition of economics, if not more superior, as I demonstrate in Papanikos (2022c). However, he is wrong when he stated that Hesiod praised manual labor. He praised work in general, any work, and most importantly managerial work by the owners of a family farm business like the one he owned. He was against maritime trade not because he was against commerce in general, but because he was very risk averse in undertaking economic ventures with many uncertainties and risks. However, as he mentions in his book it is up to what the individual prefers to do, leading to a long passage in advising how to organize maritime commerce which includes an explicit discussion of economies of scale.

Gordon's book received a lot of attention and a lot of criticisms; some of them are discussed below along with my own critical points, but the main argument of all those critics is that there was no proper economic analysis before Adam Smith worth mentioning. My argument is that there is a lot in Hesiod's *Work and Days* which are economic in nature and of course worth mentioning.

Many economists, economic historians and historians of economic thought accept that there was nothing, or very little of, economic analysis in ancient Greece for the wrong reasons. It is one thing to claim that there was no economic analysis in Hesiod's work, but it is a completely different matter to state that his economic analysis was either insufficient or false. It seems to me that most critics argue that there was no economic analysis in Hesiod worth mentioning. Unfortunately, even those who do mention Hesiod's economic work, with very few exceptions, do not do justice to his economic analysis—they are used only occasionally to support other arguments which characterize the entire ancient period and not strictly Hesiod's economy or his economic thought.

My aim here is to do justice to Hesiod's work. This introductory paper to Hesiod's place in economics is organized in five sections (including this relatively long prelude), and aims to (a) provide some reasons to explain why Hesiod's economics are ignored by economists; (b) review selected economic history books and papers which cited fragments of Hesiod's work and (c) look at the history of economic thought textbooks and some selected papers on the history of economic thought which mentioned Hesiod as making at least some sort of a contribution to

economic analysis. The next section (section two of this paper) provides the reasons why Hesiod's work has been ignored by economists. Section three and four examine some of the most known books and papers of economic history and history of economic thought which make at least small references to Hesiod's work and thought. My review of this literature is very critical because I strongly believe that all these writings, to lesser or greater extent, have misused and misrepresented Hesiod's economic analysis. The last section summarizes.

The Reasons Economists Have Ignored Hesiod

Most economists ignore Hesiod's economic ideas.¹⁸ Popular economics textbooks never mentioned any of Hesiod's firstly stated economic concepts such as his clear account of scarcity or his description of the accumulation of private property created by labor. Smith's (1776) makes no reference to Hesiod at all, even though he makes three references to Homer. Marshall (1890) who wrote the most popular textbook of the nineteenth century, *Principles of Economics*, did not mention Hesiod's work either.¹⁹ Paul Samuelson's influential textbook of the twentieth century on *Economics* did not do any better either.

Even great historians of economic thought have paid little or no attention to Hesiod's work. Schumpeter (1954) wrote a monumental book on the *History of Economic Analysis* of almost 1,300 pages and cited nothing from Hesiod's work. Even Spiegel (1991), in his book on the *Growth of Economic Thought*, who devoted many pages to ancient Greek economic thought, made only one reference to Hesiod to support an argument which is actually a misrepresentation of Hesiod as I shall explain below in the fourth section of this paper.

¹⁸For me this is intellectually equivalent to philosophers ignoring Plato's and Aristotle's work. Most economists are more aware of Homer rather than Hesiod. Homer has no proper economic analysis, even though in Papanikos (2021b) I have demonstrated that Homer's *Odyssey* referred to ten decision making meetings which resemble business and political meetings today.

¹⁹This is unfortunate because in Book II, Chapter IV Marshall opened up the chapter with a statement which gives no reference at all to Hesiod, but Hesiod's *Works and Days* would have been a good one to support his position. Marshall stated, "In a primitive community each family is nearly self-sufficing, and provides most of its own food and clothing and even household furniture. Only a very small part of the income, or comings in, of the family is in the form of money; when one thinks of their income at all, one reckons in the benefits which they get from their cooking utensils, just as much as those which they get from their plough: one draws no distinction between their capital and the rest of their accumulated stock, to which the cooking utensils and the plough alike belong. But with the growth of a money economy there has been a strong tendency to confine the notion of income to those incomings which are in the form of money; including "payments in kind" (such as the free use of a house, free coals, gas, water), which are given as part of an employee's remuneration, and in lieu of money payments." Hesiod's economy can be considered as a transitional one from a primitive community to more advanced communities which combines both the elements of a pure primitive community and a community with money and division of labour. Marshall's "payments in kind" were one of many ways of compensating labor in Hesiod's times which are explicitly stated in his *Works and Days*.

Finally, economic historians either ignore²⁰ Hesiod or cite his work completely out of context to support some general arguments about the ancient economy which are misrepresentations of Hesiod's "ideology", economic thought, or most importantly his economy of the eighth century BCE. This part of the economics literature did not present Hesiod's economic ideas or his surrounding economy, but have used some fragments from his work to support an argument about the entire ancient economy, which in some cases included a period of one and half millenniums: from the archaic economy of the tenth century BCE to the fifth century CE. It is like citing a fifth century CE book to describe the one and half thousand years that have followed so far.²¹ In addition, most of these references to Hesiod, as shown below in this paper, are literally and metaphorically "lost in the translation".

One particular book is a characteristic example and I will briefly introduce it here in order to put the whole discussion into perspective before I provide my detailed comments on it in section three below. Finley's work on *Ancient Economy* published in 1973 has been widely cited. The book has many contradictions and is based on what I call a "monomaniac ideological framework"²² which is defined as an attempt by some monomaniac authors to fit all historical and logical "realities" into their framework (model). They end up explaining nothing and Finley's book is a good example of this monomaniac ideology. Finley cited Hesiod's *Works and Days* three times to support some of his general arguments about the ancient economies. He did not present Hesiod's economy or economic thought at all, even though he should have started from Hesiod. If Finley had appreciated the economic analysis of Hesiod, he would not have made so many mistakes in interpreting him. All three citations of Finley are completely out of the context of Hesiod's work and suffer in their English translation as shown below. Despite all this, it is still a recognition that Hesiod did write something about the ancient economies (actually, the economy of the eighth century BCE), which some economic historians, whose works are considered very important by contemporary economists, find worthwhile to cite and comment upon. It is better than ignoring Hesiod's work completely as many have chosen to do.

At this point, the reader might rightly ask why economists have ignored Hesiod's work, if it is as important as I claim here to be? Isn't this illogical? Or

²⁰Anemiya (2007) wrote a book on *Economy and Economics of Ancient Greece* and had no reference to Hesiod, apart from a chart to indicate the dates of the Iron Age but he did not cite any of Hesiod's work.

²¹This is possible because they assumed that growth was very slow or even inexistent in the ancient economies. Or even worse, they claim that the ancients did not have the idea of economic growth. However, Hesiod's theory of economic growth is so relevant to what some twenty-first century economists have used to explain economic growth. This will be the subject of a future research work.

²²Finley has a model in his mind, based on Max Weber and Karl Polanyi; hardly one can consider them economists. They emphasize status as opposed to social classes to explain a relatively large period of ancient economic development. As far as Hesiod's economy is concerned, social classes played a very important role and status is not even mentioned as this is implied by Finley and others likeminded. If the reality does not fit their status-based model, they are exemptions rather than the rule. I guess Hesiod is an exception, but Finley cited him to verify the rule. Either he made a bad choice or he had a bad model in mind. I believe the latter is the case.

what economists would say, irrational. I offer the following “rational” explanations. Firstly, as all human beings, most economists prefer style to substance.²³ It is a matter of choice and economists, as all individuals, are free to choose. Homer has dominated the minds and thoughts of educated people around the globe. Most economists have read Homer’s work rather than Hesiod’s writings which are more relevant to economics.²⁴ It minimizes their transaction costs of making their writings look sophisticated and deeply rooted in history of western thought.²⁵ Throughout history, Hesiod has always been, and still is, in Homer’s shadow. It is true that myths and fictional stories are more popular to a wider audience and unfortunately many economists belong to this “wider” audience as far as economic history and history of economic thought are concerned. The “mechanization”²⁶ of economic analysis, which is more than welcomed, must first clearly state the *ceteris paribus* conditions which may not be the same in time and space.

The masses of ignorant and not so ignorant people prefer pleasurable myths to the sour facts of reality; so much so that the study and field of economics was called a dismal science by the well-known nineteenth century historian Thomas Carlyle. Most people find economics boring and many economists, especially Nobel Laureates, have tried hard to make it entertaining, at a price of course, because they sell their popular, so-called books usually at various crowded selling stands as in airports along with some popular fiction books; both are good to make

²³I consider most of the models of General Equilibrium eloquently stylish. These models are very useful only for those economists who know how to use them.

²⁴Finley (1973) cited five times Homer either his work or his period and three times Hesiod. He calls the period Homeric and not Hesiodic even though the former refers to a period three centuries earlier and Hesiod refers to his period circa eighth century BCE. He compares Hesiod’s economy with all the economies thereafter in ancient times instead of comparing Hesiod’s economy with all the economies that have followed thereafter in his own place. For example, Hesiod’s village economy of the eighth century BCE had the same market development as the same village had up to the mid of the twentieth century CE which of course is different from the market economy of the USA economy of the same period. I state these as one or two examples of the many fallacies and contradictions of the book.

²⁵It should always be kept in mind that academic economists are rational human beings and as all academics want to achieve one or more objectives (tenure, better institutions to be employed, funded projects, sell their textbooks, get a Nobel Prize etc.) subject to the minimum possible effort. Citing Homer and not Hesiod minimizes the effort. Similarly, citing the economics of Aristotle and Plato minimizes their effort as well because understanding the better economics of Hesiod requires effort. All these fit well with the rational model of economics about individual behavior.

²⁶By “mechanization” I mean that like machines some economic models are assumed never to make mistakes and there are always “solutions”. I am not against the use of mathematics in economic analysis which are everywhere as I have demonstrated by those economists who have been awarded the Nobel Prize in Economics which might be called Nobel Prize in Applied Mathematics (Papanikos 2020a). I know that even the best machines fail, but economists should continue to build such “machines”. One of the best engineers of building such mechanical modes was Robert Lucas. In his excellent paper, “On the Mechanics of Economic Development,” he constructs such well “lubricated” machines, but acknowledges previous “engineers” such as Solow and Denison. Lucas (1988, p. 6) wrote, “The example, or model, of a successful theory that I will try to build on is the theory of economic growth that Robert Solow and Edward Denison developed and applied to twentieth century U.S. experience.” This is very similar to what I argue about Hesiod. He developed a model and applied it to his own reality.

travel entertaining and these economists are very rational and very logical human beings. Hesiod and Homer did the same thing.

Homer was good in entertaining the masses. Even in antiquity, in an alleged contest between Hesiod and Homer, the masses “voted” for Homer, but the rulers gave the prize to Hesiod for the (economic) usefulness of his poetry (Uden 2010, West 1967). I guess the rulers were most probably made up from the same material as Plato’s philosopher kings. The mere fact that they organized an educational event of a poetry contest is by itself an attestation of what they were made of. That people prefer myths to truth and “easy” knowledge to acquired knowledge by hard work was well known in antiquity. Thucydides made a comment that he wrote history for those who prefer truth to amusement.²⁷

Secondly, economists and economic historians have chosen to ignore Hesiod’s works most probably because it was written in the form of a poem which was the standard method of writing a didactic book at the time, as I explained in the introductory section of this paper. Some economists prefer a pragmatic analysis of real economies; they associate poems with myths and fictions and thus choose not to read Hesiod’s book on *Works and Days*. It is consistent with the economic theory of minimizing the cost of extracting information. If it is a poem, then it cannot be an economic analysis. The fact that many referred to Hesiod’s works as didactic poetry and to Hesiod himself as a poet did not help either.²⁸ Hesiod suffered and suffers from this “bad reputation” effect. An economic explanation of this type of market failure can be found in the theory of asymmetric information or the “Market of Lemons” developed by Akerlof (1973). Economists prefer the “lemons” of the economic analysis of Homer to Hesiod’s well-run machine of explaining economics. It is another market failure which unfortunately cannot be corrected by any intervention! At least in the very long medium-term.

Thirdly, one should blame *Works and Days* itself. It is not a well written book in terms of its structure. It requires herculean abilities in reading to put all its material into a systematic order; especially if an economist were to read it. West (1988, p. xv) stated, “It must be conceded that the *Works and Days* is a disorderly, often rambling text. It looks as if Hesiod several times extended its scope and added new sections, coming to conceive of the poem as a general compendium of useful advice.”

I agree with West that it is quite possible that the *Works and Days* was revised many times and new editions would come out on various occasions. This supports the argument that *Works and Days* was a textbook or a didactic book. All popular contemporary textbooks are continuously revised and new editions are coming out to satisfy a different clientele.

²⁷I have examined in Papanikos (2020b) this important Thucydidian distinction between myths and substance as applied to pandemics. Many myths surrounded the ancient Athenian pandemic of 430 BCE as is the case with the current COVID-19 pandemic.

²⁸For example, West (1988, p. xiv), in his introduction of the English translation of Hesiod’s works, stated, “Hesiod is writing a poem, not a technical manual.” It is true that Hesiod did not write a technical manual (with the exception of detailed technical details how to construct a plough) of agriculture works which is what West refers to, but he did not write a poem either. He wrote an economics manual as explained above.

The structure of *Works and Days* is such that is suitable for reciting some parts or the entire work on various occasions.²⁹ I always wondered whether on such occasions there was the possibility of questions and discussions. In the alleged Euboea contest between Hesiod and Homer, the kings asked questions to both of them before they decided. Their answers affected the kings' decision.

There are many examples in *Works and Days* which show that Hesiod is carried away and the message does not come out clearly, at least to contemporary readers.³⁰ The book should be re-organized by reshuffling the verses back and forth to make the reading, and primarily the understanding, easier for contemporary economists. This is a task for further work and is not taken here.³¹ Also, as mentioned above, an English translation for economists is required because the existing ones are done by philologists and classicists obscuring Hesiod's important economic analyses. West's translation is good, but not good enough for an economist. After all, he considered Hesiod as a poet not an economist, as I do here in this paper.

In sum, very few historians of economic life and economic thought, and even fewer theoretical economists have paid any attention to Hesiod's work. Even those who did, had only a cursory and careless look at his work. An example is the well-cited work by Finley which makes three citations of Hesiod's *Works and Days*. These three citations are examined in the next section of this paper along with some other economic historians who have cited Hesiod's works. My criterion of selecting them is the popularity (the masses of people who read them) of their publication and not their substance. Applying the popularity criterion, I also include well known journals and publishing houses.³² These are the journals that the masses of economists read with religious zeal, similar to Hesiod's worship of Zeus and other Gods of the Greek Pantheon, who, Hesiod himself, so smartly created. Economists have created their own Gods of Journals and they worship them. After all, economists themselves are mortal human beings as Hesiod would have said!

The mere fact that the great mass of economists read these papers published in prestigious journals as well as citing them does not imply any irrational behavior. Economists, as all human beings, are rational and they want to publish and cite papers in good journals because it minimizes the cost of being accepted by their universities and future employers. I have exploited this "fakeness" of economics research many times in my career at the national and the European level. When I

²⁹A long time ago, when I was teaching introductory economics during my graduate years, along with the chair of the department we did a comparative study of all popular and not so popular introductory textbooks of economics. I do not remember how many books we compared, but we were amazed by the similarity of their structure. They all looked the same.

³⁰Particularly I have in my mind Hesiod's fable of the hawk and the nightingale. It takes some patience to understand what Hesiod really meant, which is that in the animal world there is no justice, but the human race cannot survive without it.

³¹Actually, there are two ways of reading Hesiod's *Works and Days*. The first is by citing some characteristic fragments of the work and the second by reshuffling the verses to conform to a specific concept, i.e., the scarcity issue.

³²The popularity of a theme in history is what is history all about as I explained in my book on history (Papanikos 2020c). Also, how history is used as a tool of policy making in the European context has been examined in Papanikos (2005, 2006) and Papanikos and Pappas (2006).

wanted to support my prior (pre-determined) and very rational position, I was always able to find a “good” paper in a prestigious economics journal and this way I could silence my “opponents”. I preferred Nobel Laureates, because the silence of my opponents made an even greater “noise”. This way, I was also maximizing my utility function, subject to the minimum required effort. I do recommend this to my fellow economists, especially to those who aspire to become policy-makers. I should warn the reader that this approach does not apply to economists who serve as business consultants. Business people do not like very much the immunization of any criticism that the *ceteris paribus* assumptions provide. If you want to become a business consultant, then you better start with Hesiod's *Works and Days*. You can make a lot of money!

Hesiod and Economic History

There are many economic history books and papers which used Hesiod's *Works and Days* as a testimony of the structure and development (growth) of the archaic or even the entire ancient economy. This section consists of an eclectic review of a few contributions to this literature of economic history that used Hesiod as a source.

One of the most influential books on ancient economy of the last century was Finley's *Ancient Economy*, first published in 1973. It is well cited in the mainstream economics literature. Morris (1999, p. xi), in his introduction of an updated edition of Finley's work, wrote, “... but by the 1970s he was the *central figure* in rethinking ancient social and economic history, and the *Ancient Economy* cemented the new structure. In essence it redefined the terms of the debate” (italics added).

Lowry (1979) calls Finley, “[O]ne of the most *prolific* writers on the economic history of the ancient Greek world is the classicist and ancient historian” (italics added). As will be clear from my criticism of Finley's treatment of Hesiod, his work is prolific (quantitatively productive), but as the ancient Greeks would say, the good is not in the many, but the many in the good, “οὐκ ἐν τῷ πολλῷ τὸ εὖ, ἀλλ' ἐν τῷ εὖ τὸ πολὺ”. I think Finley's work was lost in the quantity.

Lowry (1979) himself, to prove the prolific nature of Finley's work, gave fourteen references of his work including one with the characteristic title, “The Use and Abuse of History”! At least Finley did have what Chilon of Sparta, one of the seven sage men of the archaic Greece, said: know yourself, “γνώθι σαυτόν”. Finley definitely did abuse Hesiod's work! In general, his main thesis was that contemporary economic analysis is not applicable to the ancient world (1000 BCE to 500 CE) and therefore does not apply to Hesiod's economy and his textbook of economics which is what the *Works and Days* actually is. In this paper, the focus is on Finley's abuse of Hesiod and not his theory of economic history. This relatively small monograph by Finley made only three references to Hesiod's works with regards to (a) poor people and poverty; (b) labor and the working class; and (c) family size. All three are problematic to say the least. These three references are examined below.

a) *Hesiod on Poor People and Poverty*

The first of Finley's citations is made in chapter two of his book entitled "Orders and Status". Finley (1973, p. 39) said:

The very poor aroused little sympathy and no pity throughout antiquity. "Give to one who gives, but do not give to one who does not give" advised the poet Hesiod in the seventh century B.C. [Works and Days 355] and Hesiod, of all ancient writers, was no mere mouthpiece for upper-class values. What was lacking was a sense of sin.

A number of comments must be made on this really disappointing citation of Hesiod's work. Firstly, Finley's claim that Hesiod was not a "mere mouthpiece" for the upper-class values is wrong. Actually, he was the most sophisticated mere mouthpiece of his class: the upper class. This shows that Finley did not understand even Hesiod's social and economic class. Hesiod was a member of the upper class and he cared very much about his class and not so much about his "status" in society. The upper class did not include the *basileis* (kings and judges) of Thespies. They and their families belonged to aristocracy.³³ The upper class of Hesiod's time, as in Solon's time two centuries later, was divided. Hesiod represented the upper class that believed in justice and peace. On the other hand, his brother, we can infer from what Hesiod stated, represented the corrupted members of the upper class.

From a class analysis point of view, *Works and Days* does not examine the class conflict between rich and poor or upper class and lower class, but looked at the conflict between those members of the upper class who wanted fair (just) rules of economic³⁴ competition and those who thrived on corruption and bribery. Hesiod did not want to overthrow aristocracy, but to make them honest. As I have explained in my book about the current social situation in Greece (Papanikos 2014), nothing has changed since Hesiod's times in Greece. As in Hesiod's era, still today in Greece, the parasites, like *Perses*, rule Greece by bribing the archons (the executive and the judiciary). In other words, Hesiod wanted a different value system to be followed by the upper class and the *basileis* who at the time were also the judges. There was no separation between the executive and the judiciary.

However, isn't the above analysis actually true for any society for any of its classes? There are bad and good members of any class.³⁵ Unfortunately, there are many economists, anthropologists, sociologists, political scientists, social scientists in general and of course philosophers who identify the concept of the social category "upper class" as being almost synonymous, if not tautological, to

³³The same social structure appears in Homer's *Odyssey*. Aristocracy was one class but here was an upper class which owned productive property or were merchants. Hesiod himself acknowledges that people can make money through shipping but considered as a very risky business to pursue.

³⁴The reader must always keep in mind that Hesiod was an economist and all his analyses refer to economic issues. The difference with his brother was an economic one. It was about their inherited private property.

³⁵This dichotomy of good and bad is everywhere in Hesiod's works: bad and good men, bad and good judges, bad and good women, bad and good workers, etc.

corruption and unethical behavior. These “pseudo-progressive”³⁶ scientists not only are flatly wrong, but they have undermined their own cause of changing society towards a more moral human society.

Finley cites Hesiod on poor people and poverty completely out of context. There are many parts in the *Works and Days* which clearly state the ideology and the practical dimensions of Hesiod's position on poor people, poverty and giving. Finley used the above citation from Hesiod to support his argument that wealth and property was welcome in ancient times, and to prove his case that poor people were not sympathetic in ancient world. It is true and there are many and better fragments of the *Work and Days* which clearly show Hesiod's position on wealth and income. After all, contrary to what Finley stated, Hesiod was a mere mouthpiece of the upper class and this class wanted profits, money (income) and property (wealth) as Hesiod had so eloquently stated. Hesiod did not mention status as Finley would like him to have done to fit his model. However, Hesiod wanted fair profits with justice and peace.

On the issue of poverty, Finley was flatly wrong. He interpreted the citation as Hesiod suggesting not giving to the poor people. The above excerpt from Hesiod is cited out of context because Hesiod talked about not giving to stingy members of his own class and not to the poor. In other words, do not give to people who have money and can afford to give (loan) to you, but they do not because they are tightfisted. This is obvious from the entire text of *Work and Days*, but most importantly from the previous line which Finley had chosen to ignore. This is what Hesiod said in the *Works and Days*:

And give to those who give and not give to those who do not give
 One gives to those who give, but not to the ones who do not give
 καὶ δόμεν, ὅς κεν δῶ, καὶ μὴ δόμεν, ὅς κεν μὴ δῶ.
 δώτη μὲν τις ἔδωκεν, ἀδώτη δ' οὐτις ἔδωκεν [354-355]

The reader should remember that Hesiod wrote a textbook, i.e., a didactic book and gave concrete advice on what people should do in managing their economic affairs. In this context, we should interpret whatever Hesiod wrote in his book. The critical word of the above quotation is the beautiful word “ἀδώτη” which means those who do not give even though they have the means to give, i.e., stingy persons and not poor people because the poor cannot give because they do not have anything to give. A poor person cannot by definition be “ἀδώτης”. These two lines refer to borrowing and lending and not giving something for free such as a philanthropic donation (gift) to the poor as is evident from the few lines preceding these two verses.

Thirdly, Hesiod made a clear distinction between lending money and giving money for philanthropic purposes. Hesiod considered free giving as part of one's utility function; an act that brings delight and joy:

If someone wants to give, even many gifts,
 he pleases himself and his heart is full of joy

³⁶Many so-called Marxists consider corruption as being in the DNA of capitalism and bourgeois class. They are wrong!

ὄς μὲν γὰρ κεν ἀνὴρ ἐθέλων, ὃ γε, κεί μὲγα δοίη,
χαίρει τῷ δώρῳ καὶ τέρπεται ὄν κατὰ θυμόν [357-358]

The word of essence here is the gift (τῷ δώρῳ). In this verse, Hesiod talks about free giving and not loaning money or other valuable things. Hesiod's advice is to give gifts if this is what satisfies the giver. This is exactly how economists explain such giving. People give because "giving" maximizes their utility function. Hesiod uses the verb "τέρπεται" which is still used in modern Greek and means deriving pleasure or satisfaction or happiness or any other word which modern economists use to describe the meaning of a utility function.

Fourthly, on the poverty issue, Hesiod's position becomes even more unambiguous and contrary to what Finley thought Hesiod said. Hesiod wrote:

never dare vituperate the catastrophic and stressful
poverty of men, the eternal Gods gives it.
μηδέ ποτ' οὐλομένην πενήν θυμοφθόρον ἀνδρὶ
τέτλαθ' ὄνειδίζειν, μακάρων δόσιν αἰὲν ἐόντων. [717-718]

This definitely does not support Finley's claim that, "the very poor aroused little sympathy and no pity throughout antiquity." At least this is not the case in Hesiod's work; he held exactly the opposite view. He believed that poverty is not people's fault. Gods (bad luck) send poverty. This is consistent with his opening remarks of the *Works and Days* on the power of Gods (bad or good luck) where he stated:

easy strengthen someone, easy the powerful harm
easy the eminent diminish and raise the invisible
easy straightening the unfair and humiliate the arrogant
ῥέα μὲν γὰρ βριάει, ῥέα δὲ βριάοντα χαλέπτει,
ῥεῖα δ' ἀρίζηλον μινύθει καὶ ἄδηλον ἀέξει,
ῥεῖα δὲ τ' ἰθύνει σκολιὸν καὶ ἀγήνορα κάρφει [5-7]

What a better statement to his fellow upper-class members that they are blessed and not talented because Gods had decided to make them powerful and eminent, but they must be humble and fair because Gods could as well destroy them. The new political trend of the "Tyranny of Meritocracy" (Sandel 2020) explains the success of some individuals in society along the above lines taken from Hesiod's *Works and Days*, but not citing Hesiod's work. I think that good luck can be considered as tautological to Gods' intervention in human's lives.

Fifthly, there is a strong exception in Hesiod's work. Poverty should not be the result of idleness, and again this is a warning to the upper-class members. Hesiod was a strong critic of the people (like his brother who was a member of the upper class) who did not work and therefore they were "poor", i.e., they begged to their neighbors, friends and relatives to borrow the means of life. Even in this case Hesiod informs his readers that even in these cases of idleness, people including Hesiod himself would give, but would not do it repeatedly. This very much relates

to Hesiod's theory and ideology of labor and working class which Finley claims that Hesiod lacked.

b) Hesiod on Labor and Working Class

Hesiod's ideology was very clear: only honest labor and work should be used to increase wealth and private property. Finley (1973, p. 81) claimed otherwise. In chapter three of his book on "Masters and Slaves", he wrote:

The nature and conditions of labour in antiquity precluded the emergence of such general ideas, as of the idea of a working class. "Men never rest from toil and sorrow by day, and from perishing by night" said Hesiod (*Works and Days* 176-178). That is a descriptive statement, a statement of fact, not of ideology; so is the conclusion, that it is therefore better to toil than to perish, and better still to turn to the labour of slaves if one can.

A general comment must be made about the idea of a working class. In Hesiod's *Works and Days* and in *Theogony* there is not a single reference to slaves (δούλος). There is a clear reference to workers and how they should be employed, but his work was not about them. His book dealt with the upper class and not with working people that did exist, but not in such numbers as to form a mass of working class. Did Finley want Hesiod to talk about something that did not exist? Hesiod chose otherwise. Hesiod's exact verses are as follows:

Now it is the iron race; never a day passes without toil and pain,
not a night without perishing
νῦν γὰρ δὴ γένος ἐστὶ σιδήρεον• οὐδέ ποτ' ἤμαρ
παύονται καμάτου καὶ οἰζύος, οὐδέ τι νύκτωρ
φθειρόμενοι [176-178]

Finley had again cited something out of context. Hesiod compares his age with the preceding Golden Age. Hesiod's depiction of Iron Race is harsh because his book is didactic. He lives in the Iron Race and he wants to change humanity's future course because he was a strong believer (ideology) that in any social system, good and bad co-exist. His ideology (morality) tells him that the long-run survival of the human race should be based on peace, justice and honest work to solve the problem of scarcity, i.e., acquiring the means of living and accumulating wealth. Hesiod had a very simple ideology: he glorified work.³⁷ He thought only honest work of free men can create wealth; wealth which will last. This is the central thesis of his book and this is the reason why the word "work" appears in the title of the book. It is about work, all kinds of honest works of his time and there were many, too many actually, including the general categories of those who worked in the primary sector as he did, those who worked as artisans and those who were engaging in commerce with an emphasis on maritime trade.

³⁷There are many references to Hesiod's work which state that Hesiod either supported manual labor and/or agricultural work. This is not true.

Hesiod's ideology about work is consistent with the labor theory of value. He thinks that wealth is produced by hard work which includes the management of one's family business. How much more clearly could Hesiod express his ideology than in the following verses:

if your soul inside your mind craves wealth, do as I say,
and one work after another work do
σοὶ δ' εἰ πλούτου θυμὸς ἐέλδεται ἐν φρεσὶν ἦσιν,
ὄδ' ἔρδειν, καὶ ἔργον ἐπ' ἔργῳ ἐργάζεσθαι [381-382]

This is an ideological statement. Wealth is important as long as this is what people desire. Hesiod's economic model is very clear. The model has an objection function which is the maximization of a utility function based on many elements, including wealth. There are two constraints or means to achieve this. Firstly, at the level of the individual, the time spent throughout the year on well-planned work is necessary. Hesiod proposes such a plan day by day throughout the year. "Days" is a term which is included in the title of the book along with "works". Secondly, at the social and political level, the upper class (social) and the archons (political) must provide peace (stability) and justice. It is then that societies blossom. Honest wealth accumulation is desirable, but it can be done only through honest work. This requires institutions which promote justice and peace. I do not know if Finley was correct about the ideology of ancients, but he was definitely wrong about Hesiod's ideology. It is unfortunate that Finley cited him to prove his case for the entire ancient world. He should have looked for a "better" citation to support his claims.

c) Hesiod on Family Size

The third citation of Hesiod is when Finley made a point about the one-child attitudes of the ancients. Finley (1973, p. 106) in chapter four of his book on "Landlords and Peasants" wrote:

What Hesiod said, in his characteristic fashion, in the seventh century B.C. remained valid for the whole of ancient history: "There should be an only son to feed his father's house, for so wealth will increase in the home; but if you leave a second son you should die old." [376-378]

This is an egotistical scientific statement, "...remained valid for the whole of ancient history." In other words, Finley found something in Hesiod that remained true for more than one-thousand years. This was revealed by Hesiod! What a contribution! Unfortunately for Finley's work and Hesiod's fame, this was not the case. What Finley translated is the following three verses of the original text:

Only one child should be maintaining the family business
Because this way wealth increases in the estate
Dying old another child must be left behind
μουνογενῆς δὲ πάις εἴη πατρώιον οἶκον

φερδόμεν ὡς γὰρ πλοῦτος ἀέξεται ἐν μεγάροισιν.
 γηραιὸς δὲ θάνοις ἕτερον παῖδ' ἐγκαταλείπων [376-378]

Finley here is completely and literally lost in the translation. West translated it as, “and to die in old age leaving another child within,” and he made the correct note that Hesiod meant a grandson. After all, Hesiod talked about family business and as any introductory textbook in business teaches, the inheritance issue deserves a separate important chapter, if not an entire course. Hesiod knew it. Finley apparently did not. Similarly, Girgenis translation-interpretation of this part is similar to West and makes the same note. On the other hand, Lekatsas put it straight into his translation-interpretation as “the son of your son”, i.e., a grandson because this was exactly what Hesiod meant. Finley’s translation missed the entirety of Hesiod’s meaning. He was lost in his own false translation.

As the reader may notice by comparing Finley’s misinterpretation (and not translation) with all other interpretations mentioned above, the meaning is completely different. Finley’s interpretation completely missed this point, and even worse, he reversed Hesiod’s cause-effect argument. Hesiod did not state that if you have a second³⁸ son you should die old because it would have been a stupidity, a great nonsense for the simple reason that you cannot foretell when you will die. The phrase “should die” is silly. “Ha, I have a second child, I must die late.” “Ha! I have only one child, I can die young!” Here the causality should be reversed. If you live long (die old), then you must see (take care) that another child is left behind. Why? This has puzzled many readers of Hesiod because it contradicts the alleged one-child recommendation. On the other hand, it becomes biologically very complicated to have a second child when you are old because presumably you must have a wife at a fertile age, but also yourself at an old age may not be fertile anymore. My own interpretation with his patrimony of the family estate is that what Hesiod stated here is one grandson also must be available to take over the family business. Finley simply missed it.

A number of comments will show that Finley’s translation is completely out of context. Firstly, the word “μουνογενής”³⁹ appears only one time in the *Words and Days* and two times in the *Theogony*. For some strange coincidence in both cases, it relates to heritage of wealth; a strictly economic term. It is true that “μουνογενής” can be translated as one-child, but there is another interpretation of it as “unique” or “single”.⁴⁰ Thus, an interpretation can be that you should leave your property to only one child; preferably the oldest. I can only guess that Hesiod was older than Perses and he inherited half of his family business (property), if these were the only two children. If his father had followed Hesiod’s advice, Perses would have inherited nothing. So, Hesiod had a pecuniary incentive to suggest such a policy.

Secondly, the word “φερδόμεν” comes from the verb “φέρβω” which in Hesiod’s works should be translated as “save” (σώζω) or “maintain” (διατηρῶ)

³⁸Finley translates the diachronic Greek word “ἕτερος” as second and not as the correct one which is “another”.

³⁹Hesiod writes “μουνογενής” instead of “μονογενής” which is the choice of other ancient writers.

⁴⁰See the Ancient Greek dictionary by Dimitrakos (2008/09, vol. 6, p. 4741).

and not as “feed” which was Finley’s choice. It does not really make sense when it is related to the wealth as an economic concept. West translated it as “nourish” which is equally wrong. On the other hand, the philologist Girgenis translated it as “save” and Lekatsas used a word from his own Modern Greek dialect from the island of Ithaka to translate the word with the meaning “increase-grow” (αξιάνω). The correct translation or interpretation of the word is “to manage” or to run the family estate, because this way the family estate (business) would increase. This translation makes perfect economic sense and it is consistent with any contemporary approach to family business.

Thirdly, the word “οἶκον” should not be translated as “home”, but as “business” or “economy”, and the word “πατρώιον” as “family”. So, what Hesiod stated here is that one child must take care of the family business, family property or family economy. Not that the family should have only one child or one son. The two Greek translations and the translation by West missed this important point. This is clear because Hesiod used the phrase, “in the estate” (ἐν μεγάροισιν), which includes all property and wealth. If he wanted to mean house or home, he would have said “ἐν οἴκῳ”.⁴¹

Fourthly, what is certain is that Hesiod did not suggest a one-son or one-child policy, but a policy of one manager of the family business. Two lines right after the ones Finley had cited, Hesiod said:

but if more children exist then easily Zeus can provide greater wealth if many, more of the needful will be done, maximizing the additional accumulation
 ῥεῖα δέ κεν πλεόνεσσι πόροι Ζεὺς ἄσπετον ὄλβον.
 πλείων μὲν πλεόνων μελέτη, μείζων δ' ἐπιθήκη. [379-380]

Finley had ignored these two verses. It is true that they are difficult to translate. It is obvious that Hesiod meant that in a family business more people (children or workers is a matter of interpretation) would bring prosperity and indescribably great (ἄσπετον) accumulation of wealth (ὄλβον). Why? Two reasons are put forward by Hesiod; one is metaphysical and the other economic. Firstly, God (Zeus) will provide for them. Secondly, more people provide the opportunity for greater allocation of tending (responsibilities) (πλεόνων μελέτη) and therefore maximize (μείζων) the marginal accumulation (ἐπιθήκη) of revenue or wealth. This excellent economic statement by Hesiod might make no sense to philologists who try to translate Hesiod’s work either to Modern Greek or English, but it makes perfect sense to someone trained in economics. Hesiod was an economist and he taught basic economic principles. Of course, it is up to the manager of the family business of the eighth century BCE to find out when the “ἐπιθήκη” is not positive, at which point he stops “hiring” new labor or stops having additional children.

My own understanding or guess is that Hesiod talked here about additional children that can work in the family business and therefore he is in favor of more

⁴¹Even this would not have been clear what Hesiod would have meant because the word “οἶκος” sometimes means house/home and sometimes it has the meaning of what today we call economy or the economics of family business.

than one child.⁴² I base this interpretation on the fact that these two verses come right after his argument of one head of the family business. In any case, here we have a theory of optimal employment of labor by a business: hire labor up to a point where your “ἐπιθήκη” is positive, or an optimal family size which is the one that makes the “ἐπιθήκη” zero. Aristotle (*Politics* 2, 1274b) refers to a lawmaker in Thebes (Hesiod's village was part of this area) who refers to a law which regulated the number of children in terms of inherited wealth. Hesiod's work may echo this tradition before it became law as Aristotle stated.

In concluding my comments on Finley's three citations from Hesiod's work, all of them misrepresented Hesiod's position on poor and poverty, labor and family size. This is not the exception, but the rule. Hesiod either is ignored or misinterpreted as I continue to show below in this section.

Bresson (2015) made four⁴³ citations of Hesiod in his book. He does better than Finley on the absolute number of citations, but his book has 648 pages. Finley cited Hesiod three times in his book of 222 pages. Proportionally, Finley outperformed Bresson.

I should start with a remark Bresson made about Finley. Bresson (2015, p. 108) said the following about Finley:

Finley, making use solely of the discussion of the division of labor in Xenophon's *Cyropaedia* (8.2.5) and ignoring that in Plato's *Republic*, is thus proved wrong ...

However, both Bresson and Finley are wrong because they ignored the excellent and extensive division of labor outlined in Hesiod's *Works and Days*. This is demonstrated in Table 1.

Despite the size of the economy and population at the time, there was an extensive division of labor which is given in Table 1. All these different professions and types of industries are mentioned in Hesiod's *Works and Days*. This division of labor does not differ much from what one can find in a contemporary Greek village. The only thing that differs is technology of doing all these works.

The only difference between Hesiod's model of economic analysis and contemporary models is the scale. Hesiod's model is for smaller (population wise) economies with different technologies. Thus, the economic model should not be different, but it should be scaled down. It is similar to my mother's excellent homemade pies that I am sure Hesiod used to eat as well. The whole area is famous for what they call “village pies”. The first question my mother asked is, how many people will this pie be for? The model of making the pie remains the same. The scale (pan used) differs. When making comparisons economists should use the two important dimensions: time and place. Hesiod did, and very well indeed, when he developed his excellent theory of economic history.

⁴²Hesiod considered it a curse for a family if women cannot have children. He stated that many bad things can happen to a city including “women who not bear children, reducing the family size” “οὐδὲ γυναῖκες τίκτουσιν, μινύθουσι δὲ οἴκοι” [244]. This definitely would never be stated by someone who supported one child per family.

⁴³In comparison, he made twelve citations of Homer.

Table 1. *The Division of Labor and Economic Stratification in Hesiod's Works and Days*

Work	Names	Verse	Class	Type of Product or Service provided	Type of Income / Means of Life
Archons-Judges	βασιλῆς	248 261 263	Aristocracy	Peace, Civil stability and justice	Fees/Gifts/bribes
Business Owners of farms, flocks, beekeeping, cloth making, clubs (entertaining) etc.	ἑσθλός ἄοκνος μελίσσας λέσχην ἀοιδός	26 214 233 493 501	Upper	Managerial	Profits
seafaring merchants	ναυτιλῆς ἐμπορίην	618 646 649	Upper	Service	Profits
Artisans: potter carpenter, bronzesmith ship-builders	κεραμεύς, τέκτων, Ἀθηναίης δμῶος, χάλκειον θῶκον, νῆας πῆγνυσθαι	25 430 493 809	Middle	Ornaments, bronze tools, pottery	Revenue from selling their goods
Artists (Singers)	[ἀοιδός] [ἐπαλέα λέσχην]	493	Middle	Entertainment	Fee per performance
sailors	ἄνδρας	666	Lower	Service	
woodcutter	ὕλοτόμον	807	Lower Middle	Timber for building houses and ships	Price per piece of wood (?)
Skilled Farm Workers	αἰζηός	441	Lower Middle	Plow-users	Wages
Servants and Auxiliary Personnel	[θῆτά] [ἐριθος]	602 602 603	Lower Middle	Unskilled labor services	Wages
In-house Workers	[δμῶος]	430 459 470 502 573 597 608	Lower		In kind (food and shelter) [ἀρμαλῆν]
Idle People	[ἀεργός] [κεχρημένον]	44 302 303 305 310 311 312 498 500	Lumpen upper	Nothing	Use up savings/property – Borrowing – claims (compensation) awarded by the judges
Thieves	ἡμερόκοιτος ἀνήρ	605	Lumpen low	Stealing	Food and Valuables
Beggars-poor	Χατιζῶν [πτωχός] ικέτην	21 26 327	Lumpen low	Begging	Food and valuables

If the division of labor is determined by the extent of the market, then it is really amazing the extent of the division of labor that existed in Hesiod's little village economy as is so colorfully described in the *Works and Days*. This provides further evidence to the correct thesis that the difference between Hesiod's economy and contemporary economies is a difference of only two things. Firstly, a difference of what Hesiod hoped with his Prometheus Myth for the human race: continued accumulation of new technologies. Secondly, today's economies are larger in numbers: population, capital goods and workers.

Bresson makes his first reference to Hesiod to support his arguments of the development of the market as a result of the division of labor and the production of surplus in the agricultural events from the Hesiodic years. Bresson (2015, p. 109-110) made the following comment:

We see the outline of this around 700 BCE in Hesiod's poem *Works and Days*, despite the presence of basileis, kings (at that time, noblemen ruling the city), whom the poet call: "gift-eaters".

Firstly, the presence of basileis relate to justice because they were the judiciary power as well. This had nothing to do with the division of labor or the development of the market. There is not a single verse in Hesiod's *Works and Days* that related basileis to the market. Secondly, basileis were charging a fee for any court judgment and in that sense, they were bribed. Hesiod was not against the basileis, but against the unfair judgments which are the result of bribery and corruption. This is very important and is related to the conditions of city-states economic growth.

Bresson (2015, p. 119) made the second reference to Hesiod in the opening remarks of his chapter on agricultural production. Mentioning the various sources, he correctly made a reference to Hesiod's book as being the first "... which offers a representation of the peasant world around 700 BCE."

This is true, but Hesiod does more than that in his book. Actually, he presented a theoretical model of production in a family agricultural business which is diachronically applicable to any production process that is based on the private property of land, capital and the use of hired labor. Hesiod was able to extract from his peasant world what Bresson mentioned as some fundamental principles of the economics of production which are timeless and spaceless under the same conditions mentioned above. Bresson missed this important analytical point in Hesiod's work.

Bresson (2015, p. 155) made a note that "Hesiod's peasant" had many slaves. First, it is true that Hesiod's farm was a large one and employed about ten people, which even today in a Boeotian farm would be considered a very large farm. Hesiod never mentioned the word slaves (δούλος) and it is very controversial if he employed forced labor in the sense that Homer makes a note of them.

Bresson (2015, p. 161) makes his last reference to Hesiod to support his thesis on the tradition and innovation in agriculture and in animal husbandry. He makes a general reference to *Works and Days* to show the role of technical knowledge acquired through empirical experience which did not favor rapid innovation. Hesiod, of course, made explicit reference to how the productivity of land can increase by (a) using the right workers; (b) using the appropriate equipment made of the proper material of wood and metal; (c) the right time of the year and month for each job to be done; and (d) the right management by the owner of the farm estate. These four important factors are missed in Bresson's reference to Hesiod with the exception of setting the "calendar for each task".

There are many other books and papers which cited Hesiod or their subject is on Hesiod.⁴⁴ However, they do not deal with Hesiod's economy which is the focus of this section. Some books and papers on the history of economic thought have mentioned Hesiod. This literature is examined in the next section of this chapter.

Hesiod in the History of Economic Thought Textbooks

As I have already mentioned in the introduction of this paper, the influential book of Schumpeter of 1,300 pages does not make a single reference to Hesiod's works. In general, very few books on the history of economic thought present Hesiod's economic analysis. There are, though, a number of papers which do examine some aspects and present the important elements of Hesiod's economic theories and analyses. As was the case with the previous section, in this section I have chosen a few textbooks and a few papers which present or mention Hesiod's economic thought. The criterion of having selected them is the "masses" and not the substance of their analysis, which for some spurious metaphysical reasons the two are negatively related—at least as far as Hesiod's coverage is concerned.

Most history of economic thought textbooks consider the works of Plato and Aristotle as representing the ancient Greek economic thought even though neither of them wrote any monograph on economics. Xenophon who is also mentioned did write some economic treatises including the one on sources of public revenues (*Poroi*). Economics was treated as part of their general analysis of politeia and philosophy. Rothbard, who has been already mentioned above as considering Hesiod the first European economist, in his book on the "Economic Thought Before Adam Smith" is very critical about the treatment of Hesiod's economic analysis by the history of economic thought writers. Rothbard (1995, p. 523) correctly pointed out that:

The only histories of economic thought that do justice to the Greek contribution are Spiegel, *The Growth of Economic Thought* and Barry Gordon, *Economic Analysis Before Adam Smith* (New York: Barnes & Noble, 1975). Spiegel is particularly good on Democritus and Gordon is good on Hesiod and deals extensively with Greek economic thought.

But Rothbard himself in his book of 572 pages devoted less than two pages (8 and 9) on Hesiod, but he at least emphasized one of the most important contributions of Hesiod's economic analysis which is the problem of scarcity. He concluded these two pages by making an important observation about Hesiod's theory of economic growth. Rothbard (1995, p. 9) wrote:

It should already be clear that Hesiod had a far more sanguine view of economic growth, of labour and of vigorous competition, than did the far more philosophically sophisticated Plato and Aristotle three and a half centuries later.

⁴⁴For example, Van Noorden (2014) published a book on the *Playing Hesiod: The 'Myth of the Races' in Classical Antiquity*.

This is true. Hesiod's theory of economic growth is compatible with the twenty-first century theories of economic growth which emphasize the role of formal and informal institutions in explaining differences in growth trends. Rothbard (1995, p. 15) made a contrast of Hesiod's economic theories with that of Plato and Aristotle:

Aristotle, like Plato, was hostile to economic growth and favoured a static society, all of which fits with his opposition to money-making and the accumulation of wealth. The insight of old Hesiod into the economic problem as the allocation of scarce means for the satisfying of alternative wants was virtually ignored by both Plato and Aristotle, who instead counselled the virtue of scaling down one's desires to fit whatever means were available.

Unfortunately, Rothbard did not present Hesiod's important theory of economic growth or his unique use of the scarcity problem even though he mentioned its importance to the history of economic analysis. Hesiod's contribution to the scarcity issue and theory of economic growth are very important and deserve a thorough and detailed analysis.

On the other hand, Spiegel (1991) mentioned Hesiod only once without any citation of his work and only in 1-2 lines. Spiegel (1991, p. 9) wrote:

Credit transactions ... which earlier writers such as Homer and Hesiod had not mentioned in their works, began to be reported in the second half of the seventh century B.C.

If Spiegel had said that Hesiod did not analyze credit and interest, then I would have accepted it, but writing that he does not mention it is wrong. Hesiod did mention interest payments when someone borrows not only money, but any type of good. Hesiod wrote:

If you borrow from your neighbor, you should give it back
the same and even more if you can
εἴ μὲν μετρεῖσθαι παρὰ γείτονος, εἴ δ' ἀποδοῦναι,
ἀντὶ τῷ μέτρῳ, καὶ λώϊον, αἶ κε δύνῃαι [349-350]

In Hesiod's little village even today, there is no bank or any other credit institution. As was the case for centuries in small Greek villages, but elsewhere in the world as well, credit was arranged between relatives and friends for sound economic reasons which go beyond the scope of this analysis here. This is the reason Hesiod said to his brother, I am not going to lend you anything, because it was a very common practice to borrow money and other valuables (food, equipment, etc.) from friends and relatives. Spiegel, from all of Hesiod's work, found only this to mention! Truly amazing! It really is a pity! No wonder then when such popular textbooks do such an injustice to Hesiod's important economic contributions why so many economists have ignored Hesiod's work.

Rothbard mentions another book that does justice to Greek economic growth: Barry Gordon's 1975 book on "Economic Analysis Before Adam Smith: Hesiod

to Lessius". Gordon's book received many negative reviews. One reviewer, Padgug (1976, p. 215) made the following preposterous comment:

In addition, Gordon's conception of "economic analysis" is rather broad, including much that would not ordinarily be included in that category, such as the economic observations implicit in the works of Hesiod, Solon, the Greek dramatists, and the Roman legal theorists, who can hardly be considered economic analysis in any technical sense.

I mention this excerpt because he mentioned Hesiod who had the most comprehensive economic analysis in both descriptive and technical sense. What is really absurd is that this reviewer mentioned Solon who was the first known in economic history who designed the most comprehensible and integrative economic policy reform that the world has ever known. He was an economic policy maker. He was a practical political "animal". Solon did not leave any work of economic significance, but some fragments in poetry form were saved for us to cherish. To use today's jargon, all his intervention had the form of twittering and only some of his tweets have survived. The purpose of the tweets was to persuade ancient Athenians about many things including the implementation of his economic policy reforms.

Gordon's analysis of Hesiod is based on an earlier article in where he wrote on, "Aristotle and Hesiod: The Economic Problem in Greek Thought," published in 1963 in the not so popular and "entertaining" the masses journal *Review of Social Economy*. The journal re-published the article in 2005.

Gordon devotes the first pages of his first chapter of the book on "Before Plato" to Hesiod. His treatment of Hesiod is correct when he comes to the scarcity issue, however is wrong when it comes to the mechanics of economic growth. Gordon (1975, p. 3) stated:

Notably, the poet has only a faint grasp of the mechanics of economic growth. Yet in his *Works and Days*, he gives an exposition of the "economic problem" as it appears to be understood by many writers of economics textbooks today. In fact there are strong affinities between Hesiod's account of the matter and that provided by Lord Robbins in his influential, *An Essay on the Nature and Significance of Economic Science* (1932).

Furthermore, in his early paper, Gordon discussed the economic problem (scarcity) in the works of Aristotle and Hesiod. Gordon (1963, p. 147) argued that Hesiod provided a "striking anticipation of a predominant modern viewpoint" and he makes a reference and comparison to Robbins's definition of economics. This is important. Apart from these comments, Gordon missed the important contributions of Hesiod to economic analysis. At least with the title of his book he put Hesiod's name where it belongs in the history of economic analysis: in the beginning.

Many papers on the history of economic thought which were published in very prestigious (mass entertaining) journals do not do justice to Hesiod's economic analysis to say the least. Leshem (2016) published such a paper in one of the prominent journals of the American Economic Association: *Journal of Economic*

Perspectives. One of the objectives of the journal is “to provide insights and readings for classroom use.” One can only hope that Leshem’s paper will not be used in any reading list to teach students either economics or economic history. If used, it should be done as a good example of what to be avoided. One only wonders who really reviews these papers before they are published. On page 226, Leshem makes a strange claim, providing no references at all to any ancient source:

In this way, the most striking difference between ancient oikonomia and contemporary economics is their relationship to ethics. Contemporary economics is “fundamentally distinct from ethics” (Robbins 1932, p. 135), and its theory “is in principle independent of any particular ethical position” (Friedman 1953, p. 4). In addition, contemporary economists typically hold that the natural situation for humans is to live in a world in which means are scarce. On the contrary, the ancient Greek writers on oikonomia believed that humans live in a world of natural abundance that is sufficient for what people need for subsistence. From their perspective, the main task of economic rationality is to advance the good life as they understood it, which means support for philosophy, for involvement in public life, and also for not giving in to what they viewed as the unnatural urge to pursue economic goals or luxuries for their own sake. The oikonomia literature was rooted in the society of its time. It focused on well-to-do, land-owning male citizens, and it included unthinking acceptance of slavery as well as archaic and demeaning attitudes toward women. However, the discussions in the oikonomia literature concerning how to manage slaves offer some embryonic examples of discussions about how to provide incentives for labor; while the figure of the matron, more than any other figure in the ancient Greek oikonomia literature, shares traits with the modern homo economicus. That oikonomia is so rooted in ethical judgments raises questions about whether or in what ways modern economics should be linked to a more explicit consideration of what constitutes a good life.

The above long citation shows the scientific arrogance of some economists who claim to represent “contemporary” economists. It seems to me simply citing Robbins and Friedman favorably is sufficient to get published. The above citation is full of inaccuracies and contradictions. Firstly, he cites Robbins and Friedman to prove that contemporary economics do not care about ethics. It may be that Leshem, Robbins and Friedman do not care about the impact of ethical behavior on economics, but there are many contemporary twenty-first century economists who do care and consider it an important economic determinant of how scarcely resources are allocated at the individual and social level. These true contemporary economists have published many papers in the prestigious journals of the *American Economic Association* to demonstrate how informal (culture) and formal (judiciary) institutions affect how scarcely resources are allocated. In other words, my ethics and values affect how my scarce resources are allocated and having *ceteris paribus* two identical individuals, but one loves his parents and the other hates them, definitely affects the allocation of their scarce resources. Contemporary economists care about these cultural effects on choices. Hesiod is one such contemporary economist. Leshem, Friedman and Robbins are not; they have become obsolete.

Secondly, the next two sentences are really amazing. Hesiod's *Works and Days* was about scarcity and the means of living. Many economists who read Hesiod make a note of that. For some unknown reason, Leshem would never have made such a mistake if he had read Gordon's paper on Hesiod mentioned above or an earlier one by Singer. The latter paper gives a concise and clear description of Hesiod's economic analysis. Singer (1958, p. 33) wrote:

The words *oikonomia* and *oikonomos*, are absent in Hesiod's *Works and Days* although the poem (written probably in the eighth or early seventh century B.C.) seems built around the central problem of economic thought: the fundamental fact of human need, and follows the implications of that primordial fact into all its ramifications in the life of a Greek peasant. The problem, Hesiod teaches his litigation-loving brother, is to be solved not by means nowadays labelled political: by force and fraud, bribery and willful appropriation, but by incessant work in fair competition, by moderation, honesty and knowledge how and when to do the things required in the course of seasons; how to adjust wants to the resources available; and above all, how to shape attitudes and actions of all men (and the more difficult problem: women) in order that a viable, enduring pattern of peaceful social life may be established which assigns to every part its place in a well-ordered whole.

The concept of *oikonomia* and *oikonomos* were not absent from Hesiod's work at all. The actual words were absent.

Thirdly, Leshem claims that ancient Greeks thought that, "the main task of economic rationality is to advance the good life as they understood it." Isn't this what contemporary economics are telling us that every individual does? Individuals maximize their own utility function (as they understand it) which is tautological to what one means by a good life. The most important is that just in the same paragraph, Leshem makes two antithetical statements. On the one hand, he claims that economists make no value judgments, but he stated that ancient Greeks cared about philosophy and public life, an extreme value judgment statement. I care about philosophy and public life and I allocate my scarce resources to philosophy and public life in a way that maximizes my utility function, i.e., my good life! Leshem seems to disagree. As for the statements that individual ancient Greeks considered the consumption of luxury goods "unnatural" (what an unnatural word!), even if it was, this squares well with basic microeconomics. Personally, and I know many other individuals, I do not like luxuries. They do not enter into my utility function. Is this "unnatural"? I also think that it is "unnatural" when other people run after luxury goods. I consider very natural my thought of the "non-naturality" of other people's consumption behavior. Hesiod thought the same way. Leshem seems to disagree. We can only praise Milton Freedman who gave us the "Freedom to Choose".

Fourthly, Leshem is completely derailed on the issue of slavery. The Greeks and Hesiod himself used many words which might be interpreted as meaning slaves. There was no Ancient Greek word for slave. This is the reason that in Modern Greek the English word is used: sklavos. A doulos is not a slave. The

word “doulos” comes from the Greek verb *δουλεύω* which means I work.⁴⁵ Hesiod never used the word *doulos*. As a matter of fact, he was managing his relatively large estate without having “slaves”. He used the word “*δμῶς*” which has many meanings. In Homer, it meant a war-slave which can be considered equivalent to hard or forced labor. In Hesiod, the word is also used metaphorically to mean an artisan: Ἀθηναίης δμῶς [430]. It can also mean house servants and the word has been used in Modern Greek for centuries. I can report eye-witness evidence. In the 1960s in Athens the rich families had house servants, usually young girls from the country-side who were called “*doulika*,” which a literal translation meaning “little slaves,” but the actual work can be captured by the word home-servants because they were free to leave and by no means were they related to war-slaves.

Leshem cited Hesiod's *Works and Days* as being a book on the management of the “*oikos*”. Hesiod devoted 12% of his book to his amazing theory of economic history and almost one-third of his book to the production processes of agriculture and seafaring. *Works and Days* is a full-fledged economics and business textbook with microeconomic and macroeconomic approaches and theories and is contrary to what Leshem (2016, pp. 226–227) claimed:

... Hesiod's *Works and Days* (circa 700 BCE) is dedicated to the management of the *oikos* and is full of advice about agricultural production, however, in this 800-line didactic poem, the term “*oikonomia*” does not arise. It seems as if the tacit assumption in writings during this time was that all of life that mattered took place within the bounds of one's *oikos*. Thus, it was not necessary to offer a separate discussion of economic matters under the subject matter of *oikonomia*, nor was it necessary to distinguish between the economic and the political sphere.

Leshem's claim that the term “*oikonomia*” does not appear in Hesiod's work is true, but irrelevant because the concept of “*oikonomia*” is ubiquitous in the *Works and Days*. It is also not true that all that mattered took place within the “*oikos*”. There was a great division of labor and many things were produced outside the economy of the family business which is the correct translation of “*oikos*” in Hesiod's *Works and Days*.

However, contrary to what Leshem claimed above, in Hesiod's *Works and Days* there was a clear distinction between economic and political matters, between the economic sphere and the political sphere. Hesiod's textbook is addressed to individuals as economic units and to *basileis* (kings-judges) as a political unit. Individual economic (business) activities must take place within a political environment that secures peace and justice. Isn't this what contemporary (21st century) economists would argue? Leshem and many others seem to disagree. Hesiod's *Works and Days* was the first to integrate the two into a system of decision making at the micro (individual) and macro (policy) level.

⁴⁵At its glory years of the fifth and fourth centuries BCE, Athens had many “*doulos*” who worked as pedagogues, policemen, miners, artists, house-servants etc. Technically speaking a *doulos* is someone who has a boss.

Conclusions

This paper is the introduction of a larger research project which aims at recovering Hesiod's many economic theories which are hidden in his didactic textbook of *Works and Days*. This is a very difficult research task because as many credible economists have claimed, Hesiod's book is not an easy read. Using the English translations of the book does not help either. In this paper and the others to follow I use my own reading of the ancient text from an economist's perspective which I argued in this paper is different from the perspective of classical philologists.

My main conclusion of this paper is that Hesiod deserves to be placed in the beginning of economic analysis. *Works and Days* is a first principle economic textbook which includes both microeconomic and macroeconomic aspects.

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