Economy and Economics in Ancient Greece and China

T. Amemiya

(Based on a translation, with some revisions, of the Japanese article published in Kinyu Kenkyu, April 2012, Institute for Monetary and Economic Studies, Bank of Japan.)
In the Spring-Autumn period, Zhào, Vi, Hán formed one state called ることができる (戦国)
<table>
<thead>
<tr>
<th>CHINA</th>
<th>GREECE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ca 1550  Yin (殷) Dynasty begins (also called Shang 商)</td>
<td>Ca 1600  Indo-Europeans enter Greece Conquer Minoans and establish Mycenaean civilization</td>
</tr>
<tr>
<td>Ca 1220  Trojan War</td>
<td>Ca 1200  “Invasion of Dorians” End of Mycenaean civilization Beginning of the Dark Age</td>
</tr>
<tr>
<td>Ca 1050  Western Zhou (西周) Dynasty begins</td>
<td>Ca 800  End of the Dark Age</td>
</tr>
<tr>
<td>771  Eastern Zhou or Spring-Autumn (春秋) Begins</td>
<td>Ca 750  Homer</td>
</tr>
<tr>
<td>Person</td>
<td>Years</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>Guang Zhong</td>
<td>ca730-645</td>
</tr>
<tr>
<td>Confucius</td>
<td>551-479</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>453</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Mo Zi</td>
<td>ca470-ca390</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Zhuang Zi</td>
<td>ca369-ca286</td>
</tr>
<tr>
<td>Meng Zi</td>
<td>ca372-ca289</td>
</tr>
<tr>
<td>Xun Zi</td>
<td>ca298-ca235</td>
</tr>
<tr>
<td>Hanfei Zi</td>
<td>?-ca230</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sima Qian</td>
<td>145-86?</td>
</tr>
</tbody>
</table>
Cities

The development of commerce is closely related to the development of cities. An old literary source states that in the Warring-States years the length of one side of the city wall was about 2 km and cities of this size were so close to each other that the residents of a city could see those of another. Archaeological evidence indicates many city walls with a side longer than 2 km, some even as long as 4 km. Inside the city wall lived the king, aristocrats, civil servants, scholars, soldiers, traders, manufacturers, and farmers. There was some farmland inside the wall, but some of the farmers who lived inside the wall went out to cultivate the farm land outside. The capital of Qi (齊), Linzi (臨淄), is said to have held seventy thousands households.

Markets

Markets already existed in Western Zhou era, but they rapidly expanded in the Warring-States years. In Early Han, there were both permanent markets inside the city wall and periodic markets outside. In Chang An (長安) there were at least nine market places. In a permanent market there were superintendents and every month they set up official prices, but it is uncertain how rigidly those prices were followed.
Commerce and Industry

From the early part of the Spring-Autumn period, commerce and industry started to develop, and by the middle part the status of those engaged in commerce and industry increased. The important products were silk products as luxury items and various weapons including combat vehicles. Armors were mostly made of leather. The production of ironware started at the end of the Spring-Autumn period and the beginning of the Warring-States Years. In the latter period the variety of ironware increased precipitously. Weapons, farming tools, and manufacturing tools were produced at government factories. The production of bronze ware reached its peak from the end of Yin (殷) dynasty (ca. 1550 – ca.1050) to the early part of Western Zhou (西周), and then declined for a while, and recovered in the middle of the Spring-Autumn period producing fine ware with intricate designs. In the Warring-States Years iron became more important than bronze.
Currency

Coins of various shapes were issued throughout the Chinese history. Some goes back to pre Warring-States years but none to Western Zhou.

Qin ban-liang qian (秦半兩錢) (approx. 7.8 gr). In that period, coins, cloth, and gold coexisted as a medium of exchange. The Coins, Cloth Ordinance (Shuihudi Qin Tablets“”", 『睡虎地秦簡』金布律) ordered people not to distinguish between good coins and bad coins. This indicates that Qin ban-liang qian was fiat money rather than commodity money.

The First Emperor of Han (202-195)

Established the annual tax (算賦) (Everyone over the age of 15). Initially used Qin ban-liang qian. In the beginning it weighed ban liang = 12 zhu (銖, 7.8 gr), but it gradually decreased in weight, eventually to even less than 3 zhu.

Emperor Hui--Empress Lu (惠帝-呂后) (195-179)

In 186 abolished private minting and issued 8 zhu “ban liang” qian. It caused more confusion and in 182 reissued 3 zhu “ban liang” qian. It further worsened inflation.
Emperor Wen (文帝) (179-157)

In 175 he issued 4 zhu “ban liang” qian and allowed private minting again but administered it under strict government supervision and quality control.

Emperor Jing (景帝) (157-141)

Subdued the rebellion of the seven nations led by Wu and Chu (呉楚七国之乱). In 144 abolished private minting and put copper mines under strict government control.

Emperor Wu (武帝) (141-87)

Strengthened government control of minting. Monetary stability led to economic prosperity. But due to an increased combat with the Huns and the construction of the imperial tomb, the state of the national finance rapidly deteriorated. As a result Emperor Wu issued rimmed 3 zhu qian (外郭三銖銭) in 140. This coin, being of light weight, led to much illegal minting, thereby causing inflation.

As a result, in 136 abolished it and issued rimmed 4 zhu “ban liang” qian.

“leather money” (「皮幣」) (skin of white deer 0.3 m²) and white gold (「白金」) (amalgam of silver and tin, valued at 3,000, 500, and 300 qian).
In 118 issued “County-Regional” 5 zhu qian (郡国五銖銭).

In 113 issued “Upper Forest” 5 zhu qian (上林五銖銭). Many specimens of this coin have been excavated from the tomb of the Emperor and Empress of Zhong Shan (中山靖王劉勝夫妻之墓). The average weight of 4206 coins was 3.87 gr. Since the face value of 5 zhu qian is 3.3 gr, the excavated coins had on the average more weight than the face value.

Next we ask whether the money of Early Han Empire was fiat money or commodity money. A bamboo script (Zhangjiashan Han Tablets “Second Year Coin Ordinance”, 張家山二四七號漢墓竹簡 二年律令錢律) gives four guidelines for a coin to be legal tender: (1) The diameter should be at least 0.8 cun (寸) (1 cun = 3.3 cm). (2) The denomination could be deciphered. (3) It sustains no big damage. (4) It is not made of lead. These seem to indicate that Early Han regarded its money as fiat money.

However, there is some literary evidence that people tended to regard their money as commodity money. That is the reason why Early Han had to reissue coins so many times and in the last 5 zhu qian the government tried to maintain the weight close to its face value.
The first coin minted in the Aegean region was the electrum (amalgam of gold and silver) of Lydia in the 7th century. In Athens silver coins were first minted in the 6th century, and its amount increased sharply as silver mines with large deposits were discovered in Laureion in the 5th century. Every year approximately 100 talanton of silver was produced. In the 450’s Pericles started paying juries by silver coins, and later in the 4th century the attendants to the assembly, the council, and theater were also paid, giving a impetus to the circulation of coins. The currency unification act of around 449 that restricted the minting of coins in the Delos league to only Athens further increased the circulation of the Athenian coins. The coins minted outside the Delos league, such as the aforementioned Lydia’s electrum, gold coins of Cyzicus, Thracia, Macedonis, and Siphonos continued to be used.

Were the Athenian silver coins fiat or commodity? The weight and the quality of the excavated silver coins are strikingly uniform. This, together with the fact that Athens used accurately measured silver chips before the minting of coins, indicates that Athenian coins, at least in the beginning, had a characteristic of commodity money. But the monetary act of 375 states, “Sellers have a duty to accept a silver coin as long as it is made of silver and has an official insignia. ... The seller who refuses to accept the coins guaranteed by a superintendent shall have all the goods confiscated.” This decree indicates, it is the authority of the government that guarantees the quality of a coin.
According to *Han Shu* “Shi Huo Zhi” (『漢書』食貨志), Early Han from 118 BC to 8AD minted 28,000 million coins of 5 zhu qian. It amounts to the annual amount of approximately 230 million coins. In Athens, if we assume that the amount of the annual minting is equal to the annual production of silver, it amounts to 6 million drachmas. The ratio of GDP (see a later section) over the mint is approximately 1514 in China and 4.4 in Athens. It may provide a rough supporting evidence that the Athenian economy was more monetized than the Chinese economy. Needless to say, in order to make a more exact comparison, we need to know how much of the old coins other than 5 zhu qian were still in use and to what extent gold and cloth were used as money, and also what was the velocity of money, in China. A similar qualification applies to Athens as well. Thus, the tentative conclusion given above is obviously made under the condition of “other things being equal.” This result is not surprising, however, when we consider the fact that China covered a much larger territory and monetization in China must have been low in its vast rural area.
Lending and Borrowing

In the Western Zhou era the government lent money at a high interest. The agency in charge was called “money office” (泉府). The interest rate for productive loans was 10-20%.

It seems that in Western Zhou there were no private lenders, but they existed in the Spring-Autumn era. There is a lot of evidence for public and private loans in the Warring-States years. Shi Ji “Biography of Millionaires” (貨殖列伝) indicates that the annual interest of 20% was common.

In the Han period credit sale was called “extended sale” (贳売). Juyan Han Tablets (居延漢簡) attests to the extended sale of clothes. However, banks and the practice of promissory notes do not seem to appear until Tang Dynasty.

In Athens the practice of credit including promissory notes was much more prevalent than in China. Cohen [1992] states that there were 30 banks in operation in the 4th century BC. Demosthenes (XXXVI) defines the bank as “the business of using others’ money and investing into a risky business.” Isocrates (XVII) gives an example of a long-distance traveler carrying bank’s promissory note instead of cash. The interest rates were generally high in Athens, ranging between 12 and 25%. Even in Athens, however, a bank that acted as a clearing house among many companies, such as the Medici bank in the 15th century Firenze, did not exist (Cohen [1992] p. 18).
Prices

The following table shows a comparison of the prices of some representative goods in China and Athens. For each good the first row gives the monetary value and the second row gives the labor time (months) required for an average worker to purchase the good.

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>Athens</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>10,000 qian</td>
<td>3,000 drachma</td>
</tr>
<tr>
<td></td>
<td>10 months</td>
<td>100 months</td>
</tr>
<tr>
<td>Slave</td>
<td>15,000</td>
<td>174</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>5.8</td>
</tr>
<tr>
<td>Cereal</td>
<td>5 (per litre)</td>
<td>0.12 (per litre)</td>
</tr>
<tr>
<td></td>
<td>0.005 (per litre)</td>
<td>0.004 (per litre)</td>
</tr>
<tr>
<td>“Sake” or wine</td>
<td>10 (per litre)</td>
<td>0.2 (per litre)</td>
</tr>
<tr>
<td></td>
<td>0.01 (per litre)</td>
<td>0.007 (per litre)</td>
</tr>
<tr>
<td>Cow</td>
<td>2,750</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>2.75</td>
<td>1.7</td>
</tr>
<tr>
<td>Horse</td>
<td>4,500</td>
<td>408</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>13.6</td>
</tr>
<tr>
<td>Sheep</td>
<td>1,000</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>
Wealth

In the reign of Emperor Wu, Mausoleum County was newly established to house the people who serve the imperial mausoleum and moved there the wealthy people worth more than 3 million qian. The wealth of a middle-class farmer was 20,000～40,000. There was a rule that said that those with wealth less than 20,000 should not be taxed. In the reign of Emperor Wu (141-87), those whose wealth was less than 5,000 qian were moved to Imperial Garden (上林苑) to take care of the deer.

The banker Pasion, who started out as a slave and later was made a citizen, had wealth worth 75 talanton. The other famous millionaires were Callias (200 tl), Nicias (100 tl), Oionias (81 tl), and Ischomachus (70 tl). These numbers, however, are not very trustworthy. In 322 Antipater set the minimum requirement for citizenship to be 2,000 drachmas. Thus we might regard this number as the minimum one needs to be able to participate in civic duties.

I wish I could compare the income distribution of the two countries. We do not have necessary accurate figures, however. If we regard the ratio of the asset of the millionaire over that of the bottom class as an index of income inequality, we get $300 \div 2 = 150$ in China and $420,000 \div 2,000 = 210$ in Athens, roughly same numbers.
From Qin to Early Han, slaves were treated as properties. This was also true in Athens. In *Han Shu* there are many stories of buying and selling of slaves. In Early Han there were many government-owned slaves.

In China the proportion of slaves in the total population was a little less than 2% even in a high estimate, whereas in Athens it was 0.22 in 431, 0.38 in the middle of the 4th century, and 0.42 in 322, indicating a steady increase.

Slaves in China engaged in various kinds of labor for the government, aristocrats, and the wealthy, whereas in Athens there was a whole wide range of occupations ranging from someone like Pasion who became one of the wealthiest men in Athens to those who suffered from severest conditions in the Laureion silver mines.

As for the possibility of manumission, it is not easy to say which of the two countries had a more favorable situation. The possibility of manumission was rather rare in Athens. In Athens manumission meant acquiring the status of a metic (a resident alien). Only rarely, like Pasion, one moved on to the status of a full citizen.

It is said that at the end of the 5th century approximately 5,000 Athenian citizens did not own land. These citizens probably did not own slaves either. It is believed the remaining citizens owned some slaves. Since the number of citizens at that time is believed to be about 50,000, at a maximum 90% of citizens owned slaves. According to Aristophanes, rich people owned 5-8 slaves and an average citizen about 2-4. Plato had 5 slaves, and Aristotle 13.
GDP

Population 59,594,978

Land 827,053,600 mu (亩)

Productivity 1 mu 2.5 shi (石)

Total Gross Yield 2,067,634,000 shi

Seeds 57,893,752 shi

Net Yield 2,009,740,248 shi

Average Price 100 qian per 1 shi

Total Grain Production 201 billion qian

Assuming Grain/Food = 0.8

Total Food Production = 251.3 billion qian
Food/Exp Ratio for Farm = $\frac{1508}{2262} = 0.67$

F/E Ration for Business = $\frac{754}{1257} = 0.6$

F/E Ratio for Government = $\frac{251}{419} = 0.6$
Thus we conclude that the farm product is 267.1 billion qian and the business product is 142.5 billion qian. Since the civil servants who receive the total of 41.9 billion qian as taxes provide the service of the equivalent amount, we must add that amount to GDP. To that we also add the salt production to the amount of 3 billion qian and the iron production of 0.8 billion qian. The total amounts to 445.3 billion qian, which is my estimate of GDP. Dividing this by population, we arrive at per capita GDP of approx. 7,472 qian.

I have estimated GDP of Athens in the 4th century BC to be 4,430 talanton (Amemiya, p.111). If we divide by the estimate of population excluding slaves 175,000, we arrive at per capita GDP of approximately 152 drachmas. In China a monthly wage rate was approximately 1,000 qian and in Athens around 30 drachmas. Using this ratio, 7,472 qian corresponds to around 225 drachmas, which is higher than the figure for Athens.
We estimate the monthly grain consumption of a household of five members to be 10.5 shi. Then the annual consumption per person is 25.2 shi. If we multiply this number by the population, we get 1,501,793,400 shi. Assuming the slave population is 6,500,000 and the grain consumption is 36 shi per person per year, the annual grain consumption of slaves is 23,400,000 shi. If we add this number to the above, the total grain consumption amounts to 152.5 billion qian. If we use this figure as an estimate of total grain production, using the same grain/food, food/expenditure ratios as above, the per capita GDP of China is calculated to be 165, a figure much closer to that of Athens.
Economic Thoughts

(1) Warriors, Farmers, Craftsmen, and Merchants
(士農工商)

In Athens from the 7th to the 6th century BC, the middle and lower class, which engaged in commerce and industry, gradually gained its status, becoming a threat to the aristocrats who depended on farming. Also in China there was a deep-rooted idea that agriculture is primary and commerce and industry are secondary. In Western Zhou, even though agriculture was important, commerce and industry were not necessarily downgraded. Contempt for commerce and industry, as in Greece, started in Spring-Autumn, and the Warring-States years, when commerce and industry started growing.

It is noteworthy, however, that in China scholars who defended commerce and industry also emerged. Actually it is surprising that such scholars are not known in Greece. It is also surprising that we do not find Athenian scholars who defended democracy.

A. Confucius (孔子)

Confucius argued for income equality: “I hear that the man who governs a nation and the man who governs home are more concerned with inequality than scarcity, more concerned with anxiety than poverty.” (”Ji Zi” 季氏).
B. Guan Zhong (管仲)

Guan Zhong was a financial adviser to Lord Huan (桓公) of Qi (齊) (?—643). Scholars belonging to the Guan Zhong school kept publishing works in the name of Guan Zi (管子) up to the days of Emperor Wu of Early Han.

Guan Zhong believed the four classes should live in separate areas, warriors near the army, farmers near the farm, craftsmen near the government agencies, and merchants near the market. He also believed the four classes should be hereditary in principle, although he would allow an exceptionally stout farmer to be a warrior.

He proposes a policy to promote agriculture in Guanzi “Governance” (治國) and “Gravity Part D” (輕重丁) but recognizes the importance of commerce and industry.

He feared the antagonism between the rich and the poor: “When the income inequality exceeds a limit, everything is lost.” (“Five Aids”). Plato said a similar thing in The Laws (744D). Guan Zhong tried to solve this problem by the government’s direct buying selling and its price policy.

C. Mo Zi (墨子)

“When the lower class works hard, public finance prospers.” (“Heaven’s Will” Part B, 天志中).

He criticized li and yue (禮樂, morals and music) emphasized by Confucianism as luxury and extravagance.

“We should give food to the hungry, clothes to the cold, rest to the laborer, and peace to the disorderly.” (“Against Fate” Part C, 非命下).

“Therefore the ancient sage kings in their governance appointed the virtuous people for high positions and valued the wise. They appointed even people from the lower three classes as long as they were able and promoted them to peerage, gave them high salaries, and gave them the right to make important political decisions.” (“Merit of Wisdom” Part A, 尚賢上)

“Even farmers, craftsmen, and merchants competed against each other in upholding virtue.” (“Merit of Wisdom” Part A)
D. Meng Zi (孟子)

“Those who exert mind rule others, those who exert body are ruled, the ruled feed the rulers, the rulers govern the ruled, and this is universal truth.” (“Lord Wen of Teng Part A”, 滕文公上).

“Give 5 mu (0.54 acre) of lot for a household and plant mulberry trees, then those above 50 will be able to wear silk clothes.” (“Lord Hui of Liang” Part A, 梁惠王上)

“There was an ignoble man, who would climb to a high place, look around, and if he finds a place where he is likely to make a profit, goes there and monopolizes the profit. Everyone despised this man, and the government started imposing the merchant tax.” (Gong Sun Chou Part B”, 公孫丑下).
E. Xun Zi (荀子)

“A son of a craftsman always succeeds his father’s profession.” (“Influence of a Great Scholar”, 儒効).

“Man by nature cannot live without forming a group. If a group does not have classes, people quarrel. If people quarrel, they become disordered, and if they are disordered, they fall into trouble. Therefore, life without classes brings the greatest harm, and that with classes brings the greatest benefit.” (“National Wealth”, 富國)

“The best way to repair disorder and eliminate harm is to establish classes and group people accordingly.” (“National Wealth”).

“If the descendants of lords and aristocrats do not make an effort to observe morality, they should be relegated to the rank of commoners, and if the descendants of commoners enhance culture and scholarship, adhere to right conduct, and strive for moral life, they should be elevated to the rank of aristocrats and ministers.” (“Kingdom”, 王制).

“We should lower the farm tax, unify the market and import-export taxes, minimize recruiting farmers for non-farm work so that farmers can concentrate on farming, then the wealth of a nation will increase.” (“National Wealth”)
F. Sima Qian (司馬遷) ("Biography of Millionaires")

“Many commoners without a rank, without meddling with politics, without interfering with the lives of people, increased wealth by trading at the right moment. Intelligent people can learn from this.”

“Therefore, farmers provide food, forest guards supply mountain resources, and merchants distribute these goods. The government did not order the collection of the goods. It was done because each person did what he could best and wanted to get what he needed. When the prices are high, that is a sign they will soon become low. Everybody diligently attends to his task and enjoys doing it just as water flows to a lower place. He keeps working days and nights, comes even if he is not called, and supplies goods even if they are not demanded. This stands to reason and is the way it should be.”

After mentioning how various millionaires obtained their fortunes, he concludes, “These people did not get rich because they were given land by the government, nor did they thwart law or did evil things. They observed the law of nature and found the right moment to act and make a profit. They made a fortune by the secondary occupation (commerce) and preserved it by the primary occupation (agriculture). What they got by force, they kept it by civility. As the world changed, they reacted with moderation. That is why it is worthwhile mentioning them.”
G. Sang Hongyang (桑弘羊)

Sang Hongyang (152BC – 80BC) was the finance minister of Emperor Wu and in 120BC became the officer in charge of salt and iron monopoly. “Salt Iron Debate” (塩鉄論) is a record of the debate between Sang Hongyang versus the Learned (文學) and the Wise (賢良) chosen from the public regarding the pros and cons of the monopoly of salt and iron, which took place in 81BC and 30 years later recorded by Huan Kuan (桓寬).

“Wealth is obtained by strategy, and not by labor. Profit comes from power, and not from tillage.” (Salt and Iron Debate “distribution”, 『塩鉄論』通有).

“Xian Gao contributes by selling cattle to Zhou (周), Wu Gu by lending vehicles in Qin (秦), Gong Shuzi by making use of compasses and measures, and Ou Ye by smelting. Craftsmen perform their tasks in the shops and farmers and merchants trade and benefit each other.” (Ibid.) And yet, in order to convince the Learned, he argues that the monopoly of salt and iron has the benefit of suppressing the avarice of the big merchants.
（2）Utilitarianism

What was the principle of action for the scholars of ancient China and Greece: good (義) or utility (利)?

Confucius, Meng Zi, and Zhuang Zi are all close to Plato and Aristotle in that they rebuke search for utility or profit. In contrast, Guan Zi, Mo Zi, and Xun Zi regarded pursuit for utility and profit as a fundamental human desire and did not altogether denounce it.

The well-known phrase of Guan Zi, “When the warehouse for grain is filled, people will acquire morality and temperance, and when people have enough clothes and food, they will comprehend honor and shame” ("Rearing People", 牧民) represents this thought.
A. Confucius

“Teacher said, if you let profit command your action, people will resent you.”
(”Li Ren”, 里仁)

“Obtaining wealth and fame by wrong-doing has as little to do with me as floating clouds.” （”Shu Er”, 述而）.

The concepts that are fundamental to the ethical theory of Confucius are ren (仁) and li (禮). Li is the rule man must observe in society. This term traditionally contained a lot of the ritualistic element, but Confucius emphasized the more essential content. For example he says, “Observing morals and yet not respecting others, attending a funeral and yet not grieving, is there any merit in such action?” (“Yi Ba”, 八佾).

Ren is the most important concept in the ethics of Confucius. Han Tuizhi (韓退之) of Tang (唐) defined it as universal love (博愛) and Cheng Yichuan (程伊川) of Song (宋) defined it as unification of virtues (諸德之総合).

“If man does not have ren, there is no use having li, nor yue.” (“Yi Ba”) Ren is a very deep concept. So much so that Confucius himself once confessed “I don’t know what ren is.” (“Xian Wen”, 憲問)
B. Mo Zi

“Man values good treasure because he derives utility from it. . . . Good (義) brings utility (利); therefore good is treasure.” (“Geng Zhu”, 耕柱) and “Good is utility.” (“Jing Part I”, 經上). “Heaven seeks good and despises evil.” (“Heaven’s Will” Part A, 天志上) and “Therefore, good originates in Heaven.” (“Heaven’s Will” Part B, 天志中).

Utility or benefit (利) mentioned by Mo Zi is mutual benefit based on the idea of mutual love (兼愛思想): “If a man loves others, the others will always love him. If a man gives benefit to others, the others will always benefit him. If a man harms others, the others will always harm him.” (“Mutual Love” Part B, 兼愛中).

The mutual love of Mo Zi is analogous to ren (仁) of Confucius and love of Jesus. Note ”If mutual love permeates the world and if everyone loves each other like himself, will there be any unhappiness left in this world?” (Ibid.) and “What is the meaning of following Heaven’s will? It means loving everyone.” (“Heaven’s Will” Part C, 天志下). Compare them with Jesus’s sayings: “Thou shalt love thy neighbour as thyself”(Matthew 19:19), “Love your enemies, bless them that curse you, do good to them that hate you, and pray for them which despitefully use you, and persecute you”(Matthew 5:44), and “Verily I say unto you, Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me”(Matthew 25:40).
C. Zhuang Zi (莊子)

Zhuang Zi is clearly not a utilitarian. We might say he is beyond the dispute between utilitarian versus non-utilitarian.

“Man enjoys good living, good food, good clothes, beautiful women, and good music. . . . these are all matters of outward appearance and it is stupid to be concerned with them.” (“Greatest Happiness”, 至樂); “A petty man devotes oneself to utility.” (“Webbed Toes”, 鳩拇).

Then he goes beyond it saying in “Greatest Happiness”, greatest happiness exists in non-action (無為).

“Possessing many treasures and yet not knowing where they came from, having abundant food and drinks and yet not knowing where they came from, such is the state of a virtuous man.” (“Heaven and Earth”, 天地).

There is nothing similar to the philosophy of Lao Zi (老子) and Zhuang Zi in the classical period of Athens, but “logos” of the Ionian philosopher Heraclitus of around 500 BC is similar to the concept of “way” (道) of the philosophy of Lao Zi and Zhuang Zi.
D. Xun Zi

Xun Zi starts from recognizing that man has desires. Thus his philosophy is sometimes characterized as the ethical theory that human nature is evil. See for example, “Human nature is such that he desires meat for food, embroidery for clothes, horse carriage for travel, and accumulation of wealth.” (“Honor and Shame”, 宗賞).

“How did 《li》 arise? Man is born with desire, and if an object of desire is not obtained, he keeps desiring it. Unless there is a certain limit to this desire, people will contend against each other leading to a strife, which may destroy society. The ancient sage kings despised such strife. Therefore, they established 《li》 thereby setting various limits so that human desires are moderated in a harmonious manner. That is how 《li》 arose.” (“Theory of 《li》”, 禮論)
E. Han Feizi

“The reason Wang Liang loved horses and Yue King Gou Jian loved men was because they wanted to make their horses run fast and their men fight well. The reason a physician sucks up the pus from a patient’s wound and keeps blood in his mouth is not because he feels as if the patient is his own relative but because he gains from it. A carriage maker wishes everyone will become rich, and a coffin maker wishes everyone to die young. It does not mean that a carriage maker is virtuous and a coffin maker is evil. If a man does not become rich, a carriage will not be sold, and if a man does not die, a coffin will not be sold. It is not that a coffin maker hates men. It simply means that he derives profit from a man’s death. (“Internal Defence”, 備內).

“A poor man is poor either because he is prodigal or lazy. The prodigal and lazy becomes poor and the frugal and diligent becomes rich. Therefore, if the government taxes the rich and gives to the poor, it means punishing the frugal and diligent and rewarding the prodigal and lazy.” (“Prominent Scholars”, 顯學).
F. Sima Qian

Like Mo Zi and Xun Zi, Sima Qian is a realistic thinker. Like Han Feizi, Sima Qian says everyone seeks utility: “Everyone gathers where there is gain.” (“Biography of Millionaires”)

Unlike Han Feizi, however, there is a saving grace in Sima Qian because he laments “Profit-seeking engenders strife.” in “Biographies of Mo Zi and Xun Zi.”

The following quote makes him a true utilitarian: “If you compare freelance knights with aloof philosophers like Ji Ci (季次) and Yuan Xian (原憲) in terms of social status and power as well as their respective utilities to society, there is no comparison.” (“Biography of Freelance Knights”, 游侠列伝)
(3) Division of Labor

The idea of division of labor goes back to Plato (The Republic, 369Bff) and Xenophon (Cyropædia, VIII. ii. 5). In China it goes back to Meng Zi and Xun Zi.

In “Prince Wen of Teng” Part A (滕文公上), Meng Zi, in response to Chen Xiang who says that any king who does not farm land himself and taxes a farmer harms the farmer, asks whether a farmer who exchanges his product with a blacksmith’s hardware harms a blacksmith.

He goes on to say, “Unless we divide our works and exchange each other’s products, farmers will have surplus food and women will have extra clothes.” (“Prince Wen of Teng” Part B, 滕文公下).

Xun Zi also comments on division of labor: “If farmers allot fields to cultivate, merchants divide goods to sell, manufactures allocate works of endeavor, government officials perform each other’s share of responsibility, feudal lords divide their territories to govern, and ministers attend to their respective duties, the monarch can relax and needs to do nothing.” (“Monarchy vs. Hegemony”, 王覇).
Xunji also says, “There have been many who liked and engaged in literary studies, but only Cang Jie (倉頡) is known to this day because he focused his attention on it. There have been many who liked and engaged in agriculture, but only Hou Ji (后稷) is known to this day because he focused his attention on it. There have been many who liked and engaged in music, but only Nao (夔) is known to this day because he focused his attention on it. (“Dissolving Impediment”, 解蔽).

The main difference between Plato’s and Smith’s theory of division of labor is that Plato believes division of labor results from differences in people’s preference and ability, whereas Smith believes division of labor is a result, rather than a cause, of differences in ability. “The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seems to arise not so much from nature, as from habit, custom, and education.” (Smith [1994] p.17).
(4) Theory of Prices

Guan Zhong was well aware of the fact that a price is determined by supply and demand, and conversely, supply and demand respond to price (which he calls Theory of Light and Heavy, 輕重理論).

“The market determined the level of prices. … By observing the market one can tell whether the nation is orderly or disorderly, whether the supply of goods is sufficient or deficient. But the market itself cannot determine the supply.” (“Riding Horses”, 乘馬).

Aristotle in Nicomachean Ethics (1133A33-35) states, “There will therefore be reciprocal proportion when the products have been equated, so that as farmer is to shoemaker, so may the shoemaker’s product be to the farmer’s product.”

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

Guan Zhong says, “Money is the irrigation channel for goods.” (“Measurement”, 榑度). This is the same idea as Aristotle’s remark that money facilitates exchange (*Nicomachean Ethics* 1133B)

Guan Zhong was a precursor of quantity theory of money: “Suppose the government owns nine-tenths of the total currency and the public owns one tenth. This will make the value of the currency to rise and the value of goods to decline. At this moment, if the government uses its currency to buy goods, the currency will flow to the public and the price of goods will rise tenfold.” (“Stabilization Policy”, 山国軌).

Guan Zhong says the following: “Therefore, the previous king made use of these valuable goods (gold, pearls, and gems) making gems the highest money, gold the second highest, and knife-shaped copper money the lowest. Thus the previous king manipulated the value of gold thereby controlling the value of gems and copper money. (“Value of Money” Part B, 輕重乙}. Thus we should call him a realist.

Sang Hongyang was a nominalist: “Therefore, if the government chooses one kind of money, the public cannot use anything else. If the government authorizes the currency, the public will not entertain any doubts.” (*Salt and Iron Debate* “Circulation”, 『塩鉄論』通有).
We might say Plato was a nominalist. See the following conversation between Socrates and Adeimantus: “But again, within the city itself how will they share with one another the products of their labour? This was the very purpose of our association and establishment of a state.” “Obviously,” he said, “by buying and selling.” “A marketplace, then, and money as a token (symbolon) for the purpose of exchange will be the result of this.” Also in the ideal state of *the Laws*, see “For these reasons we say that our people should possess coined money which is legal tender (nomisma) among themselves, but valueless elsewhere.” (742A)

In contrast, Aristotle seems to swing back and forth between nominalist and realist. In *Nicomachean Ethics* (1133B) he states, “But demand (chreia) has come to be conventionally represented by money; this is why money is called nomisma (customary currency), because it does not exist by nature (physis) but by custom (nomos), and can be altered and rendered useless at will.” This is the nominalist’s position. In *Politics* (1257A35—B1), however, he says, “hence for the purpose of barter men made a mutual compact to give and accept some substance of such a sort as being itself a useful commodity was easy to handle in use for general life, iron for instance, silver and other metals, at the first stage defined merely by size and weight, but finally also by impressing on it a stamp in order that this might relieve them of having to measure it; for the stamp was put on as a token of the amount.”
4. Conclusions

Common factors in China and Athens

By the period we are considering the two countries had already maintained a long history of highly sophisticated civilization. Both civilizations had written languages, intricate bronze ware, and later, ironware.

The second common element is the fact that Warring-States years of China and the Classical Age (510-322) of Athens experienced many wars.

The third common element is the emergence of the entrepreneurs.

The fourth common element is the fact that in both countries there were able financial officers who successfully managed public finance. In China we should mention Guan Zhong of Qi, Ji Ran (計然) of Yue (越), Li Kui (李悝) of Wei, and Sang Hongyang. In Athens Eubulus and Lycurgus of the 4th century BC were famous.

Next I ask the reason a host of great thinkers appeared in both places at about the same time. Two important reasons may be the growth of the economy and the development of cities as the center of government and commerce.
Another important impetus to the emergence of great thinkers is the fact that both in China and Greece at about this age the idea of trying to explain both natural and social phenomena not by myth but by reason started to take place.

The uniqueness of this period in history, when many first-rate thinkers emerged, is also noted by Jaspers, *The Origin and Goal of History*, Yale University Press, 1953. Jaspers adds India, Persia, and Palestine to China and Greece and calls the period from 800 BC to 200 BC the Axial period and emphasizes its significance. As the representative philosophic-religious leaders of these regions, Jaspers mentions Confucius, Lao Zi, Mo Zi, Zhuang Zi, and Lie Zi for China, Upanishads and Buddha for India, Zoroaster for Persia, Elijah, Isaiah, Jeremiah, and Deutero-Isaiah for Palestine, and Homer, Parmenides, Heraclitus, Plato, tragic poets, Thucydides, and Archimedes for Greece. (p. 2) Jaspers characterizes this period as the time when man for the first time in history became “conscious of Being as a whole, of himself and his limitations.” (p. 2) The impact of this period is so great that after this period man is not the same as before.