Reviews

Philip Kay, *Rome's Economic Revolution*, [Oxford Studies on the Roman Economy], Oxford: University Press, 2014. 384 pp. ISBN 978–0–19–968154–9

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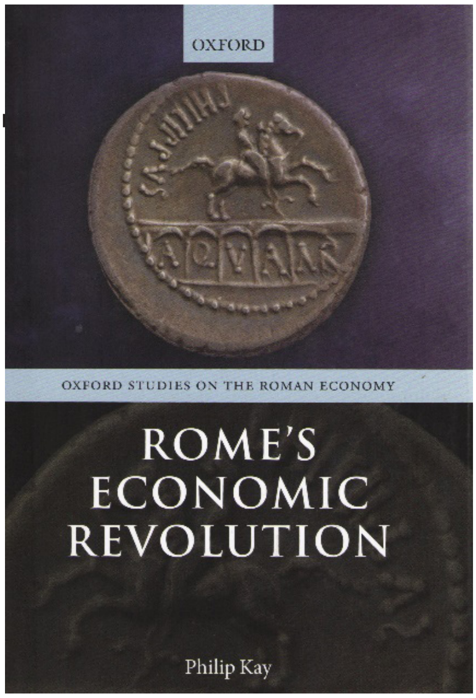

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Probably the best description on the content of this book and its author's skill to present the subject can be found on the back cover of this work, which I took permission to reproduce here: 'In this volume, Philip Kay examines economic change in Rome and Italy between the Second Punic War and the middle of the first century BC. He argues that the increased inflows of bullion, in particular silver, combined with an expansion of the availability of credit to produce significant growth in monetary liquidity. This, in turn, stimulated market developments, such as investment farming, trade, construction, and manufacturing and radically changed the composition and scale of the Roman economy.

Using a wide range of evidence and scholarly investigation, Kay demonstrates how Rome, in the second and first centuries BC, became a coherent economic entity experiencing real per capita economic growth. Without an understanding of this economic revolution, the contemporaneous political and cultural changes in Roman society cannot be fully comprehended or explained.'

The book under review is part of the series of monographs dedicated to the Roman economy – 'Oxford Studies on the Roman Economy'. The flagship volume of this series has been already reviewed in a previous issue of this journal.[1]

From the beginning of this book – 'Introduction. The Creation of Complexity' – it is stated the aim of book: 'the economic change in Republican Rome between the Second Punic War and the middle of the first century BC' (p. 1). In fact, the author is going to analyse what happened economically in Rome from 214 to 88 BC when in both years the treasury was 'virtually' empty.

The first aspect are the military victories which were considered direct and indirect causes for new income: sources for spoils, slaves and payments. At the same time the new mines became new sources for income together with the profit from investments in the new territories. The control upon the trade in the Mediterranean was another sources to increase the income for the state.

The author consider that all the above mentioned aspects had made the Roman society to adopt a new economic and social structures capable to face the new richness.

According to P. Kay, the access to new sources of precious metal – especially silver - led to the increase of denari' production and liquidities in Italy.

On the same line, the author use the term 'economic complexity' to define the process in which the rich peoples must rethink their expenditures and the strategy to invest their money. The results were: a wider geographical cover and the development of trade network; the increase of investments in agriculture; a wider specialization; the development of financial intermediaries; the increase of credit availabilities.

At the same time, it is stated that all these economic had more implica-

1 http://www.jaha.org.ro/index.php/JAHA/article/view/60.

tions on other spheres of daily life. For instance, the author noticed the transformations in cultural mentality: the use of mortar in constructions; the consumption of bred instead of porridge.

On the other side, the scholars points out the limits of ancient sources regarding the complexity of these changes, especially the numeric evidence. These limits can influence the analysis on important key features such as the difficulty to observe the numeric economic growth; a false evidence to see more anachronism information.

Pages 4-6 are focused on a historiographic discourse on economic aspects of the Roman Republic. At the same time, the author explains the aim of this book to identify and explain the key elements in the economic transformations in Rome of the 2nd century and early 1st century BC.

The 'Introduction' ends with the presentation of the book's structure and the reasons that led to it.

Chapter 1. 'Rome and its Economy at the Time of the Second Punic War' (p. 9-18).

P. Kay carves in this chapter the portrait of a Roman society around the event that was going to radically change following the military successes and the economic improvements afterwards.

The importance military victories are analysed within the context of their role in the foundation of new cities and the development of road network in Italy between 295-225 BC (e.g. the construction of aqueducts, temples). Despite the growth in use of the bronze and silver coins in 3rd century BC the economy was just partially monetized. This aspect has a positive view as there was no permanent bureaucracy (not yet!).

The economic mirror of Rome before during and after the Second Punic War is magisterially pointed out in order to familiarize the reader with the impact of a war that started bad but ended well for Rome. At the beginning of the war Rome had the economy and commerce in full development. The severe defeats, especially after Cannae, brought Rome in a heavy financial difficulties – *penuria argenti* (p. 27). While the state came close to the bankruptcy the salvation came from the very rich individuals together with massive loans from abroad.

P. Kay points out that when the Roman state was in crisis the population was ready to support the war effort. (p. 16)

Chapter 2. 'Indemnities and Booty' (pp. 21-42)

This chapter analyses war impact upon the Roman economy and the transformations in Roman society after coming out victorious from the Second Punic War. Once the war was won a large quantity of booties and indemnities arrived in Rome plus the use of new mines. The benefit of this victory could be seen 35 years later when the Roman state suspended the direct taxes on its 'own citizens' (p. 21) and changed the architectural and economic faces of Rome even at the individual level.

The author proves in the following pages (pp. 22-24) that the Romans had no need to use gold in transactions and was used mainly as a store of value while the transactions were made in silver and bronze.

An important aspect for the understanding of the development of Roman Republican society pointed out by the author is that of the military expenditures. Based on ancient sources P. Kay states that the military costs represented 77% of state expenditures and estimates that between 200-168 BC the state spent 5,4 millions/year (900 talents) for the army to which other 8,1 million denarii (1,350 talents)/year were added for supplies and logistics.

On the other hand, the absence of well organised infrastructure led Rome to finance military campaigns through direct sources: spoils and indemnities from the defeated enemies. Rome preferred to get more precious metal than to tax the new annexed territories. The reason for such financial policy is seen in the fact that for the Roman senators the economic income from private and public sectors through military victories was regarded as a normal source of profit and expansionist policy. The ancient literary sources indicate the spoils of war were an important sources of income for the Roman state. On this line, the author provides a large number of examples with huge sums/quantities of money or precious metal that entered the state treasury. At the same time, P. Kay points out that the spoils were shared between the treasury, commanders, officers and soldiers although there is no clear formula about the percentage of these shares. This aspect offers the author the possibility to explain the term *manubia* as the part of spoils that went to the commander. He was entitled to use his part of *praeda* for public constructions.

A series of examples of booties are used by the author in order to demonstrate the increase of importance of this category of income for the Roman state (e.g. in 14 years from the end of the Second Punic War Rome received 27,280 talents between 201-152 BC, five times more than it received during the 3rd century.

Chapter 3. 'Mining Revenues' (pp. 43-58)

After the military sources of income for the Roman state and individual and their impact on the transformation of the Roman society this chapter presents the role played by the mines in this process.

The access of the state to new mines made the mining revenues to be also a very significant income source for the state in the 2nd century BC. In order to point out the importance of mines for the state income, P. Kay compare the quantity of silver extracted by the Carthaginians with the paucity of silver for the Romans. A situation that radically changed after the Second Punic War not only because of the Roman victory but also the use of new Roman technological innovations.

Pages 49-54 consist of an exhaustive discourse on the *publican* regarding the ownership and exploitation rights of mines. Two case-studies – Hispania and Macedonia – are provided by the author in order to demonstrate the flexible policy of the Roman state on this income source. In Hispania, the mines exploited through *publicani* while in Macedonia the gold and silver mines were closed in 167 BC because of insurrection but also because that the treasury had enough metal. However, when the demand was at high level the mines were reopened (e.g. 157 BC).

Chapter 4. 'State Finance and the *lex Sempronia de provincial Asia*' (pp. 59-83)

Once more, the author demonstrates that despite this law - *lex Sempronia de provincial Asia* – the Romans collected taxes even before this act.

The next pages (pp. 73-76) are dedicated to a detailed historical and casual analysis on the process to introduce various taxes following Hellenistic models.

An important aspect analysed by P. Kay is the Roman economic thinking in the 2nd-1st centuries BC (pp. 76-82). The approach is gravitating around the personality of Gaius Gracchus who is seen as the personality who tried to offer a legislation that would have allowed the population of Rome to have some profit from external conquests. An aspect reserved exclusively to the magistrates. *Lex Sempronia repetundarum* was issued to stop the magistrates' abuses to assimilate estates for themselves although were destined for public purposes. A consequence of his initiative was the state budget for public expenses while the laws issued in his period also marked the beginning of the control and exploitation of ressources in Mediterranean by the Romans.

Chapter 5.'*Cashing in the Plunder*' (pp. 87-105)

As the chapter's title mentions the main question that arises is: whether the massive quantity of precious metal that arrived in Rome after the Second Punic War was transformed in coinage? And the implications of this process: the increase of economic activities or inflation, or both?; did the Roman economy become entirely monetized?; did the circulation area of denarius increase?

In order to see if it is possible to offer plausible answers the author goes for a critical analyses regarding the opportunity to find out the quantity of denarii produced after the Second Punic War. On this line, the author inserts the subchapter entitled "*The Roman Denarius and the 'Hopkins Model'*" (pp. 89-93). However, three-quarters of this subchapter are focused on the positive and negative aspects of Crawford theory regarding the possibility to strike 30,000 denarii per die.0

Using a comparative analysis for various geographic areas, P. Kay demonstrates that the *denarius* replaced quite late the local coins (pp. 93-94). At the same time, it is forwarded the theory that the Roman coinage did not penetrate the Hellenistic East. The possible reasons were: a) the immobility of coin within the maritime trade; b) the risk of losing money on maritime transportation; c) possible prohibitions for coin export, mainly gold and silver; d) the Athenian tetradrachmas were still a strong currency.

The end of this chapter states that despite a limited evidence was still possible to identify a certain inflation following the increase of monetary supply (e.g. the increase of prices for food; luxury; the monetary retariffing.

In conclusion, the author considers that the Roman coinage knew a wider area of circulation during 1st century BC. At the same time, a certain inflation could be noticed but cannot be quantifiable due to the lack of sources.

Chapter 6. '*Credit and Financial Intermediation*' (pp. 107-128)

The main aim of this chapter is whether in Republican Rome the financial intermediary (the banks) created such mechanism to make money beside the supply with precious metal. This aim was set up to find out whether the coin supply was limited in Republican Rome by the quantity of coins minted by the central authorities and, on the other hand, the existence/absence of bank deposits may prove the economic level of the society.

The author provide a large approach on proper understanding of various terms.

The author correctly separate the definition of ancient banker from the modern one – the last one invests the profit in a third party and is sustained by the state while in crisis).

Pages 108-110 consist of a historiographic and critical excurse on various economic theories and at the same time the author demonstrates that the Romans used the word *pecunia* (money) cover everything that has a certain value – immovable and movable goods.

Based on ancient literary evidence, P. Kay offers a theoretic model of how an ancient bank worked in Republican Rome – from the start of a bank deposit to a profit by using this money in offering loans. The advantage in this case is that the coinage is still in circulation unlike hoarding.

After presenting the appearance of bankers (*argentarii*) in Rome in 318-310 BC similar to the *trapezitai* in Greece the author shows in detail the advantages and disadvantages of their presence in Rome including the legislation on banking as well as the bankers' abuses. Beside the ancient literary sources, P. Kay uses the epigraphic evidence to demonstrate that the banker job developed within families and knew a technical diversification.

Although different from the modern bank (e.g. technologies, the legal right of possession, the aim of banking activities) the Roman bank was a business run by individuals and partners independent from state. However, no matter the historical period the banks have the same principle: loans from existent deposits.

Practically, these *argentarii* created credit and made money beside the supply with precious metal by the state.

Chapter 7. '*Investment Farming and Agricultural Exploitation*' (pp. 131-188)

The agriculture is analysed in this chapter as the largest branch of economy, which must face a rapid process of urbanisation. The author present numerous cases of investments in land during the 2nd century BC and that the ancient authors have considered these investments has the most profitable ones. Still, P. Kay using both ancient literary sources and archaeological evidence demonstrates that at least until 120 BC the Roman elite did invest in agriculture but only in Italy: taxes in the provinces while the legislation has forbidden the senators to have estates outside Italy. On the other hand, the pragmatism was another reason to have estates in Italy. The owner of an estate in Italy produced wine, oil, meat for export and for the rapid increasing urban population. On the same line, the literary and archaeological evidence – including the analysis of shipwrecks – indicate that the development of Rome's infrastructure and vineyard led to a true boom on the export. The number of shipwrecks and the wine amphorae from Italy doubled for the 2nd century BC and the cargo ships have increased their size.

The analyse from economic point of view of Cato's work, *De Agricultura*, gives the author the occasion to demonstrate the existence of a great interest for the developing of all subdivisions of agriculture and its infrastructures. (pp. 147-155).

Another interesting aspect that P. Kay is pointing out in this chapter is the interest of the new rich people, after the Second Punic War, to invest in technology in order to increase the efficiency and implicit the profit, certainly, beside the use of slaves. (pp. 157-160).

The analysis of the attempt by the politicians to own land even from *ager publicus populi Romani* has led to the agrarian crisis of 133 BC and the legislative disputes on this matter. (pp. 160-166).

Based on archaeological evidence the old theory in which the slaves' work was raised to the highest peak is now invalidated. The small agricultural and independent units have survived during this period of development of the large units that used slave labour. (pp. 166-173).

The demographic aspect is discussed by the author through the action of Tiberius Gracchus who at the time to propose the agrarian reform was concerned by the increase of the poor population. The analysis of more census from that period proved that he was right. (pp. 173-178).

Continuing with the demographic analysis of the Roman society of the 2nd century BC, P. Kay indicates that the number of slaves was actually smaller that it was considered before. His conclusion came from the high discrepancy between the number of captured slaves and those who manage to survive were fit for work. The demographic analysis per total proved a gradual increase of population at all levels. This last aspect correlated with the end of colonization policy and the increase of trade led to a stronger competition to own land. (pp. 178-183).

The main conclusion of this chapter is that the increase of interest of the Roman elite in agriculture was connected by the investment of that capital coming from the spoils, the booties, the incomes from Hispanic mines, the destruction of Carthage, and the development of commerce in the East. (pp. 188).

Chapter 8. '*Trade, Capital, and Interconnected Markets*' (pp. 189-213)

This chapter discusses the development of trade through the presence of Roman businessmen in the provinces and the available capital. Again, using the literary and epigraphic evidence, the author presents numerous cases of Romans from the elite who invested a lot of capital in trade and business with the eastern provinces. A case-study – the city of Delos – is used in order to present how a Roman *emporia* was born and organised in the East: a complex network of trade communities from commercial *collegia* to religious ones. (pp. 197-202).

The slave trade is considered another argument for the increase of the economic power of Rome in this period. According to Latin authors (e.g. Strabo) since the 2nd century BC, the western market regularly requested slaves. On the same line, another aspect that proves the rise of Rome's economic potential was the trade with luxury products which flourished in this period.

The massive presence of Roman merchants in the provinces led to the introduction of a Roman trade model – the Roman products replaced the local ones.

Chapter 9. '*The creation of "Material Complexity"*' (pp. 215-265)

The 'material complexity' it is, probably, the best term to describe the radical transformations in all aspects in the Rome and Italy after the Second Punic War. The second century BC witnessed changes in the architecture of Rome by constructions that were mainly financed by the state from money coming from booties and war indemnities. On the other hand, the southern Italy followed a Hellenistic tradition due to its commercial contacts with the East. In this area the financial support comes through evergetism from those who the war enriched them or were involved in the trade with slaves and luxury products.

In order to prove his theory, the author presents in detail those constructions erected by consuls and censors at the moments of capital inflow. On the same line, an excellent approach to make us to understand better the importance of these transformations is that on the use of new technologies in constructions that proved a new pragmatic economic mentality of the Romans. P. Kay illustrates his point of view with the case of the *opus reticulatum*. This new technology involved less labour force, the work was done faster and at lower prices, but above all the aesthetic aspect as these material could be easily shaped.

Regarding the labour force – the workers – the literary evidence is extremely limited and the sources that mentions some aspects can offer us only a vague picture on their organization and number. The same situation applies to the transportation and logistics in construction field.

The author considers that the laws issued to encourage/force people to return to their own cities an argument that the many of the people saw in constructions a source for income better than in agriculture. On the other hand, the Roman elite was less involved in the production from other economic departments. The craftsmen were the main producers. According to P. Kay, the possible explanation is that the production of objects was not considered very profitable by the elite. The archaeological evidence is used by the scholar on this line to prove that the small workshops were the most numerous one.

Chapter 10. '*After the Credit Church*' (pp. 235-265)

Based on the Cicero's letters, at the mid-1st century BC, the author points out that beside the banking system an important economic role is played by the 'financial aristocracy' – those who loan large sum of money to their acquaintances from the elite. It is not surprising that now appeared the term *faenator* (everyone who offered credit). The banks' decline in the 1st century BC is seen in: a) the restrictive legislation regarding the debts from the 80's BC; b) in the effects of the Social War and the wars with Mithridates – the loss of eastern money, *pecuniae Asiaticae*; c) the absence of an operational environment for the banks in the exchange process with local currencies.

As expected, P. Kay identifies also the society reaction to this situation: a) to keep whatever is valuable – cash; b) the loans are mainly directed towards acquaintances or family members; c) the increase of loan's rate, especially in the provinces where the rate was not controlled by the state.

The unstable situations (e.g. 80's, 40's) increased the hoarding and took money out of circulation while the credit came into a crisis period.

The author present the options the Romans had for this unpleasant context: 1) the increase of coin production (in the 80's and the 40's); 2) to limit the hoarding to keep coin in circulation – under Caesar; 3) to assist debtors 'by forcing creditors to invest in land (in the 40's, and in AD 33). It is demonstrated that only the first solution had success and there was no idea that the Roman state could borrow from the private sector.

The conclusion to this chapter is that the 1st century BC saw a world of lending between individuals where the role of bank deposits has been heavily reduced, which had a negative impact upon Roman economy.

Chapter 11. '*Forecasting the Past*' (pp. 269-325)

As even the author states this chapter is a 'highly theoretical and in many parts, conjectural'. (p. 271)

The approach goes a methodological discourse on two aspects fundamental aspects, which also represent a dilemma for the historian: if one would quantify the Roman economy would he talk about the size of the Roman economy at a certain moment or will try 'to measure the rate of growth of its economy over a period of time'? (p. 269).

Then, P. Kay clearly points out that he is going to measure the size of Rome's economy at three different dates: 150, 100, and 50 BC by comparing 'conjectured size of that economy at each of these dates' in order to see if the 'real per capita economic growth occurred'.

Pages 271-274 are dedicated to the understanding of key terms such as GDP (gross domestic product) and GNP (gross national product).

According to P. Kay the most important factors that can influence these terms are the inflation and the population. (p. 278) Beside, the war and commerce had a more important role that was thought before especially because of their collateral implications upon economy (e.g. geographic and economic expansion, the increase of labour force and taxes; the improvement of technology.

In the absence of a strong evidence for the calculation of inflation the scholar preferred a 'medium case' using a GDP deflator (pp. 283-284) that allowed him to estimate that the inflation raised by 20% in the first half of the 2nd century BC; 50% in 100 BC; 30% - in 50 BC.

Similar algorithms (e.g. 'bare bones basket', GDP - expenditure) allowed the author to rich important conclusions on the analysis of economic dynamics in Rome and Italy during the period under study. Thus, the military expenditures decreased between 199-150 BC just to rise again during the Social War and afterwards. An aspect that led to the conclusion that the military expenditure acted like an economic detractor in the second half of the 2nd century BC but became the main ones after 90's. On the same line, the individual consumption (food, home, living costs) raised by 46 % between 150 and 100 BC and by 5% for the period of 100-50 BC.

The analysis on the import and export demonstrated that the value of exports of consumption goods (wine, oil) was smaller than the one for imports of slaves and luxurious products, which made the Rome's trade balance to be a negative one.

The subchapter 'Money', (pp. 311-322), proposes in very convincing approach a new methodology for future research on this topic. The methodology is mainly based on the statistic interpretation of an impressive investigation to obtain as any as possible numeric information from literary sources on various amount of money. However, the multitude of calculations to verify the Fisher equation (MV=PY) is based on logical-deductive reasoning. Even the author considers that the results must be regarded as virtual ones.

The conclusion of this subchapter indicates that the increase of denarius' production in the 2nd half of the 2nd century BC and the first half of the 1st century BC contributed to the economic development. The state expenditures were directed towards the army, grain supply and investments in the urban infrastructure and roads.

The 'Summary and Conclusions' chapter (pp. 327-334) presents in a very useful manner for the reader the main conclusions of this book. A chapter that is most welcome after the reading of a book which is extremely rich in presenting ancient literary and archaeological evidence combined with many statistics and calculations and references to other modern works.

An argument for the last part of previous phrase is the 'Bibliography' (pp. 335-358) which impressive by the quality and the quantity of the information the author red in order to write this book.

A very useful instrument for this book are the two indices – 'Index of Sources' (pp. 359-372) and the 'General Index' (pp. 373-384).

In conclusion to this review, it must be pointed out the enormous database the author worked with and his ability to extract crucial historical information. For certain, this book is going to be the fundamental work in understanding the complexity of the Roman republican economy.