

**THE IMPACT OF THE
ROMAN REPUBLICAN ARMY
ON THE ITALIAN ECONOMY**

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ABSTRACT

The purpose of my dissertation is to offer an alternative view on the impact of the army on the Italian economy with particular focus on the second century, the period between the end of the Second Punic War and the age of the Gracchi, a period of crucial importance for the Roman Republic.

This dissertation is divided into eight chapters focused on three main topics:

- a) The introduction and development of military payment during the Republic, and what role it played on the Roman economy both in terms of cost for the state, and income for its citizens involved in military service;
- b) How the recruitment system of the army was organized, and progressively evolved from the origins of Rome to the end of the second century and the age of Marius. This will facilitate the analysis of the scale of military service and its burden on Roman citizens;
- c) The relationship between the army and the economy during the second century, and the strategies employed by the Roman citizens and their families in order to find a balance between military service and their economic cycles.

Contrary to traditional research, it is my intention to demonstrate that the army not only was an essential part of Rome's economic system, but it is also possible to suggest a positive impact at both a macro and micro economic level; indeed, the legions were not simply a cost for Rome's finances, but represented one of the main sources of income and allowed a massive circulation of money. Furthermore, by involving citizens directly and indirectly, the military service was the most important source of alternative income and occupation.

All the dates reported in this thesis are intended as B.C. unless otherwise indicated.

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INTRODUCTION

“There can surely be nobody so petty or so apathetic in his outlook that he has no desire to discover by what means and under what system of government the Romans succeeded in less than fifty-three years in bringing under their rule almost the whole of the inhabited world, and achievement which is without parallel in human history.”¹

Passage from the introduction of Polybius’ Histories

The subject of this dissertation is the relationship between the Roman army and the economy of Italy during the expansion of the Republic. The main purpose of this research is to offer a better understanding of the role and impact of the army and military service on the Roman economy and population; our main focus will be the period from the Second Punic War to the end of the age of the Gracchi.

It is our intention to question the model of decline of the Roman economy and population – and the role of the military service therein – elaborated by Peter Brunt and Keith Hopkins.² We are going to challenge this model by arguing against the generally accepted negative function attributed to the army during this period, mainly against the argument that heavy recruitment rates - due to the wars in the East and Spain - caused a peasant emigration and the immiseration of the country-dwellers.

In recent years, important contributions by John Rich, Lukas de Blois, Dominic Rathbone, Elio Lo Cascio, Luuk de Ligt and Saskia Hin, have highlighted weaknesses of the previous model and the complexity of the Gracchan issue.³ Their inputs range from re-examining the census figures to offer a better and more

¹ Polybius, I. 1; he is referring to the years between 220 (shortly before the Second Punic War) and 167 (the end of the Third Macedonian War).

² Peter Brunt, *Italian Manpower, 225 B.C. – A.D. 14* (Oxford, 1971) and Keith Hopkins, *Conquerors and Slaves* (Cambridge, 1978)

³ John Rich, ‘The Supposed Roman Manpower Shortage of the Later Second Century B.C.’, in *Historia* 32 (1983); Lukas de Blois, *The Roman Army and Politics in the first century before Christ* (Amsterdam, 1987); Dominic Rathbone, ‘The Development of Agriculture in the “ager Cosanus” during the Roman Republic: problems of evidence and interpretation’, in *JRS* 71 (1981); Elio Lo Cascio, ‘The Size of the Roman Population: Beloch and the meaning of the Augustan census figures’, in *JRS* 84 (1994) and ‘Recruitment and the size of the Roman population from the third to the first century BCE’ in ed. Scheidel, W., *Debating Roman Demography* (Leiden, 2001); Luuk De Ligt, *Peasants, Citizens and Soldiers: studies in the demographic history of Roman Italy 225 BC – AD 100* (Cambridge, 2012); Saskia Hin, *The Demography of Roman Italy: population dynamics in an ancient conquest society 201 BCE – 14 CE* (Cambridge, 2013)

complete understanding – due to the improvements in the field of survey archaeology – of the archaeological data. Finally, new interpretations on the overall impact of military service have been suggested by Paul Erdkamp and, in particular, Nathan Rosenstein.⁴ All of these new models serve as a starting point in developing an alternative, more optimistic view and also highlight the positive importance of the relationship between the army and the economy of the Roman Republic.

Though our main focus is going to be the second century, the changes we see during this period were likely underway earlier. In the sections dedicated to the recruitment system, we are going to show the scale of military involvement of the Roman and Italian peoples. Although we can trace this process more easily in the second century, the payment of the *stipendium* from the late fifth and the gradual extension of Roman colonisation likely brought direct rewards to the Roman people from military engagement which would both act as an encouraging factor behind aggressive imperial expansion (see Harris) and boost the Roman economy through the distribution of resources.⁵ From the mid-third century, this also likely provoked the progressive monetisation of the economy and fed economic development and increasing economic sophistication.

Furthermore, the evidence in the chapters on recruitment suggest that the benefits of military service, which were at a basic level in the *stipendium*, were significantly boosted by the distribution of post-campaign resources, were widespread and should have encompassed what might be termed the “upper peasant classes”. It is these relatively small farmers who are present in a surprisingly resilient form in the archaeological record alongside the growing villa sector, as showed by the results of both the South Etruria surveys and the more recent Tiber Valley Project.⁶

Regarding the second century, although recruitment remained at considerable levels, we will argue that, in spite of the connection of high-recruitment levels and peasant immiseration in our sources and secondary literature, the effects of military service were likely much more complex (we might even say that they became even more complex during the second century). By combining archaeological surveys with the arguments offered by Harris, Erdkamp and, more recently, Philip Kay, we might look at the army as a potential source of income for Roman citizens and Italian allies, not necessarily only as a

⁴ Paul Erdkamp, *Hunger and the Sword: warfare and food supply in Roman republican wars (264-30 B.C.)* (Amsterdam, 1998); Nathan Rosenstein, *Rome at War: farms, families, and death in the Middle Republic* (Chapel Hill/London, 2004)

⁵ William Harris, *War and Imperialism in Republican Rome, 327-70 B.C.* (Oxford, 1979)

⁶ See Timothy Potter, *The Changing Landscape of South Etruria* (London, 1979)

burden.⁷ Contrary to what we might expect, peasant immiseration actually encouraged military service, since it guaranteed incomes and even provided opportunities for enrichment, and Roman citizens were most likely aware of this, thus, it is hard to keep looking at military service as a burden.

Military service on this scale likely continued to transmit economic resources from the state to the lower orders in Roman society, supporting the peasantry. Connected with this is the overall appeal of military service: as we will show, alluring campaigns with real chances of enrichment attracted numerous citizens who joined the legions willingly. As suggested by Kay, we believe that the expansion of the Republic not only enriched the elite, but also the common citizens. By contrast, unpopular campaigns had the opposite effects (following the example of Rich, we will see that the wars in Spain are the primary examples of this), and were the prime factor behind decreasing registration rates for the census.

At the same time, we are not denying the general immiseration of the Roman peasantry, as it likely raised some political pressures and one means of combatting those pressures and of increasing manpower available to the legions, was to lower the census requirement for military service. By allowing poorer citizens to join the army, we have to rethink the impact of the benefits offered by military service, as they surely became more important. The army operated as a distributive network, pumping money into the Italian economy at several levels (both directly and indirectly): in support of the soldiery in the form of their *stipendia*, in the distribution of booty and war indemnities, but also through the contracts and business opportunities provided in supply of the army.

Consequently, we will suggest that the army is also partly responsible for the rise and development of the whole *villae* system. Recent contributions by Stephen Dyson, Annalisa Marzano and Alessandro Launaro, make possible to challenge the traditional model, usually known as the "villa schiavistica".⁸ Their surveys' results show that, while *villae* have always been part of Roman society, they weren't really prevalent before the late second century. We are going to suggest that the expansion of the *villae* is connected with the expansion of the army. The expansion of the army - in terms of legions recruited by the Republic - from the mid-third century, and, as a consequence, the growing demand for food and supplies to be commercially distributed, likely provided an important stimulus for the capitalistic

⁷ See Philip Kay, *Rome's Economic Revolution* (Oxford, 2014)

⁸ Stephen Dyson, *The Roman Countryside* (London, 2003); Annalisa Marzano, *Roman Villas in Central Italy: a social and economic history* (Leiden/Boston, 2007); Alessandro Launaro, *Peasants and Slaves: the rural population of Roman Italy (200 BC to AD 100)* (Cambridge, 2011)

development of Roman agriculture. This development likely focused on the estates of the wealthy, who had the resources to supply the legions and make a healthy profit.

This process was dramatically accelerated by the Second Punic War due to the unprecedented (and unmatched until the great conflicts of the first century) number of troops recruited by the Republic. This conflict also was responsible for the birth of what we might call the economy of war: the production and distribution of military and non-military requirements that became a prevalent fraction of the Roman economy, and involved cities and *villae* alike.

The thesis starts with a chapter on the sources. Much of the analysis depend on the numbers suggested by our literary sources (mainly Polybius and Livy, but also Appian) and so it is necessary to examine the reliability of the figures in the histories and consequently whether we can use the sources to produce meaningful estimates of numbers of soldiers under arms, casualties, population, and, as a result, military participation.

After the section on the sources, the thesis will be focused on three key topics:

- a) Military Payment
- b) The recruitment system and the proportion of the Roman and Italian population drafted into the army
- c) Economic effects of military service

The second chapter of the dissertation covers the *stipendium*, the payment that Roman soldiers received from the state. Chronologically, it covers the topic of military pay from its introduction until the changes made by Caesar, the last variation reported by the sources dated to the Republic. It examines the development of the *stipendium* and how it might have been affected by monetary reforms using as main source the detailed research by Michael Crawford.⁹ Briefly - mainly because of the lack of sources - it also tries to understand the payment of the allied contingents who served in the Roman army, and how the consequences of the Social War changed the impact of military payment for Rome's finances. The final part of the chapter is focused on the meaning of regular state payments for the soldiers, which is directly connected with issues of taxation (*tributum*). By looking at the obvious costs for the Republic, it

⁹ See Michael Crawford, *Coinage and Money under the Roman Republic: Italy and the Mediterranean economy* (London, 1985)

suggests a more positive aspect to this system for both the Roman economy - as, for example, Roman coinage was distributed by military expenditure -, and the individual Roman (and Italian) citizens.

The central body of the thesis is concentrated on the Roman recruitment system. The main focus of these sections is on methodologies of recruitment, and the social and economic consequences of recruitment. Also, these chapters will offer a quantification of military service by suggesting plausible rates of recruitment. These data will allow to truly understand if they were as high and unbearable as it is usually believed, and it is very important in the later part of the thesis.

The first of these sections covers the period from the Regal Era to the third century exploring the origins of the Roman army and the recruitment system up until the Second Punic War. It also offers a discussion on the much debated Polybius II. 24 passage in which he describes a great levy and the manpower capabilities of Rome and the Italian allies at the time of the last great Gaul invasion of 225.

The second recruitment section offers a detailed analysis of the Second Punic War. It examines the number of men recruited and deployed by Rome year after year in order to assess the demographic impact of the war. This section is followed by a chapter focused on the economic impact of the conflict. Contrary to the more accepted theories, it highlights the different regional effects of the war, identifying key differences between Central and Southern Italy, and suggests that local differences make it impossible to generalize as to the impact of the war. We can even suggest that the massive amount of cash produced and spent by the Republic may have actually boosted aspects of the economy. Finally, we have to consider the role of the military industry as a source of employment and wealth for the civilian population not directly involved in the war, and also a look on the role of war refugees to counterbalance the loss of labour due to heavy recruitment.

The next chapter, the final recruitment section, is focused on the second century from its beginning to the end of the age of the Gracchi, a period of economic and institutional changes. It starts from the aftermath of the Second Punic War and the first changes to the recruitment system. I will argue that the population recovered rather quickly from the damages of the Hannibalic War, contrary to traditional scholars such as Brunt, and, from a military point of view, that during these decades the Roman army started a process of transformation from a force of conscripts to one of volunteers (first steps towards the professionalization of military service). The next step is to analyse the central decades of the century in

order to fully understand the real impact of military service during these much discussed years; for this reason, I will offer a more detailed analysis of the wars fought by the Romans during the second half of the century. I regard these conflicts, as suggested by Rich and, more recently, by De Ligt, as the main causes of the fluctuations in the census figures. At the same time, however, we will analyse other conflicts, like the Third Punic War (149-146), that offer an opposite scenario. Our military study will allow us to offer an updated list of the legions in service during this period from which we will be able to understand the burden of military service. Also, this section highlights the importance of the attractiveness of military service, a factor that should be considered in the discussion of the under-registration, a well-known problem in the study of Roman census. By combining all of this data, this chapter will suggest that there was no manpower shortage in the Gracchan period.

These sections will thus offer a different perspective on Roman military service. *Contra* the more traditional negative approach, we are going to show that recruitment was very variable and, for the most part, kept at tolerable rates. Furthermore, we will argue against the connection between the growing poverty among Roman citizens and recruitment. In fact, we are going to discuss that military service was one of the strategies adopted by Roman families to make their livelihoods: it is possible that the army was part of the solution to poverty, rather than a problem during the mid-second century. It seems possible that the Romans of the period (as opposed to those of the two centuries later) realised this and responded allowing for voluntary recruitment and the lowering of the minimum census requirement. The direct benefits of military service can be assessed alongside the indirect benefits (the flows of money into the system; the demand for supplies; the demand for weapons and other equipment) to suggest that to a much greater extent than merely the inflow of capital and slaves, the Roman economy benefitted from the military expansionism of the period.

The next step of this thesis, and its final chapter, is to offer a detailed discussion on the overall economic effects of military service. This chapter is divided into two parts: the first part is focused more on the economy of the second century, and how scholars like Lo Cascio, Erdkamp, Kron, Rosenstein or Kay have all suggested alternatives to the traditional negative view offered by Brunt and Hopkins.¹⁰ An important part of the chapter will be dedicated to a discussion on the *villae* supported by literary and archaeological evidence. It is our intention to support the new theories against the standardization of the

¹⁰ Geoffrey Kron, 'The Much Maligned Peasants. Comparative Perspectives on the Productivity of the Small Farmer in Classical Antiquity', in eds. De Ligt, L. and Northwood, S., *People, Land and Politics* (Leiden, 2008)

"villa schiavistica" model. This section will end with our suggestion that the army and its growth from the mid-third century played a crucial role in the development of the *villae*. We will also offer a brief discussion on agricultural production that will lead to the very complex demographic debate between "high" and "low" counts, and the possible third way.

The second half of the chapter is focused on the impact and role of the army in the Roman economy. We will examine the plausible different strategies adopted by Roman families to counterbalance the absence of their men due to service in the legions from a more important contribution of free labour, involvement of family members (women in particular), and a more widespread ownership of slaves. We will then analyze the direct impact of military service by suggesting that the army was an alternative source of income of particular importance as it absorbed surplus labour. Next we will highlight the importance of the indirect impact of the army. A significant portion of the Romano-Italian population was employed in order to produce the military and non-military supplies of the legions, very important in terms of employment, circulation of goods and cash. The production of equipment - military (weapons, armors, etc) and non-military (clothing, etc) was probably concentrated in towns and may have been an important source of employment for the population. The final section of the chapter looks at colonization and its connection to military service, as well as a strategy for poverty alleviation.

I believe that this project will strengthened the new and alternative view on the role of the army in the economy of the Republic, in particular during the second century.

The first step in changing the general perception of the impact of the army is to demonstrate that military service was not necessarily negative for recruits. First of all, new survey evidence seems to suggest the existence and endurance of a moderately wealthy Roman peasantry; it is plausible that this class was partially maintained by the rewards of service. Second, the progressive reduction of the census requirement for service in the legions allowed more citizens to become eligible for military service. These new recruits, who came from the poorer classes of Roman society, were actually interested in service as it was a concrete source of income for them. It offered regular if low payment - which was better than unemployment and/or wage labour, usually their only options. While the *stipendium* was not the most attractive benefit offered by the army, booty and other post-service rewards provided opportunities to improve the economic status of poorer citizens. Next, the army, throughout military spending, is likely to have been central in the development and spread of Roman coinage, and the subsequent monetization

of the Roman economy. The *stipendium* allowed for a massive circulation of cash, the booty brought back by the legions at the end of victorious campaigns was also a crucial source of income.

Alessandro Launaro, referring to the villas and the relation between free peasants and slaves, says: "It was Roman expansion throughout the Mediterranean - with all its political, economic, social and cultural implications - that triggered and sustained this process..."¹¹ With this thesis it is our intention to go even further, and suggest that Roman expansion, during all its phases, from Latium to the Mediterranean, triggered and sustain the whole process that was the Roman economy.

¹¹ Launaro, *Peasants and Slaves*, 176

Chapter 1

SOURCES

This preliminary chapter of this dissertation addresses the nature of the literary sources and how we may use them. The discussion is in three sections: an introductory part on our sources in general and their significance for our topics, followed by an analysis of Polybius, Livy and Appian, the three main sources for this dissertation. The next, and final section will be focused on the matter of numbers in the sources, as it is a topic of crucial importance for this thesis. Our main focus will be their reliability and whether we should accept, trust and use the figures suggested by Livy, Polybius and Appian.

The foundation of Roman historical tradition is usually attributed to Fabius Pictor – portrayed as Rome’s first historian, though he wrote in Greek – who lived and worked during the mid-late third century.¹² He was the first of many who wrote to preserve the memory of Rome and to transmit to future generations the exploits and characters of her famous men.

Although the supposed beginning of Roman historical literary tradition was during the third century, it seems likely that Romans were already transmitting their history. Warrior suggests that: “...the Romans already had a sense of identity and curiosity about their origins before their “history” was put into writing.”¹³ Cicero suggests that: “...at banquets it was the custom of our ancestors for the guests at table to sing one after the other to the accompaniment of the flute in praise of the merits of illustrious men.”¹⁴ Thus the records of aristocratic families can be seen as a source of information on early Rome. As noted by Oakley: “History was of vital importance to a Roman aristocratic family: the *gloria* [...] came largely from the achievements of its ancestors, and these had to be remembered and jealously guarded. Each *gens* or *stirps* had an acute consciousness of how its prestige compared with that of its rivals.”¹⁵ The most common way to glorify the *gens* was by the ritual of the *laudatio funebris*, funerals in which the virtues

¹² Pliny, *NH*, X. 34. 71 tells an anecdote regarding Fabius Pictor during some operations against the Ligurians. Donald Baronowski, *Polybius and Roman Imperialism* (London, 2011), 43 suggests that he took part to the war of 238-233 between Romans and Ligurians.

¹³ Valerie Warrior, *Livy, The History of Rome, Book 1-5* (Indianapolis/Cambridge, 2006), xv

¹⁴ Cicero, *Tusculan Disputation*, IV. 2. 3

¹⁵ Oakley, *A Commentary on Livy*, 28

of the decease (and thus of the family) were celebrated together with the achievements of his ancestors. Funerals appear to have been also important on a public level: as described by Polybius, funeral processions of distinguished individuals involved not only their families and relatives, but the whole community. Particularly emphasized by Polybius is the impact of such processions on Roman youths, as he believed that they would be inspired to greatness by the examples of such prominent figures.¹⁶ Such procedures points to families keeping archives.¹⁷ Some of this material may have entered the annalistic tradition, as suggested by Oakley: "...it is indeed quite possible that some of the numerous variants in the consular lists are the result of bogus claims by individual families..."¹⁸. Cicero and Livy both suggest that a good deal of the evidence regarding early Roman history (for the regal and early Republican period in particular) may have been distorted by exaggerated funerary records.¹⁹ For this reason, and considering that magistrates of the Late Republic maintained *memoranda* and *commentarii* of their magisterial acts, it seems plausible that family archives were a quite old tradition. Due to the lack of public administration during the Regal and Early Republican period, it seems that the only alternative for maintaining records was preservation within households, and, as suggested by Pliny, such records were accessible.

Fabius Pictor and his successors were probably also able to draw on some prior annalistic material. It seems likely that the keeping of annals was established relatively early in Roman history. Annalistic sources are one of the primary potential sources for early Rome. The *annales maximi*, the annual records kept by the *pontifices maximi* up to the pontificate of P. Mucius Scaevola (130-115) mentioned every major event of each year (such as triumphs, treaties, wars, the building of temples, eclipses, plagues, earthquakes, or other portents), and were clearly a source of information on early Rome.²⁰ Their content,

¹⁶ See Polybius, VI. 53 on the whole procession. On the role on young Romans, see Polybius, VI. 53-54

¹⁷ See Pliny, *NH*, XXXV. 2. 7: "The archive-rooms were kept filled with books of records and with written memorials of official careers."; Gellius, *AN*, XIII. 20. 17 and Dionysius, I. 74. 5

¹⁸ Oakley, *A Commentary on Livy*, 31-32

¹⁹ See Cicero, *Brutus*, 62: "Yet by these laudatory speeches our history has become quite distorted; for much is set down in them which never occurred, false triumphs, too large a number of consulships, false relationships and transitions of patricians to plebeian status, in that men of humbler birth professed that their blood blended with a noble family of the same name, though in fact quite alien to them..." and Livy, VIII. 40: "I believe that historical record has been marred by funerary eulogies and false inscriptions on ancestral busts, with the various families all illegitimately appropriating to themselves military campaigns and public offices."

²⁰ See Cicero, *de Oratore*, II. 12. 52: "For history began as a mere compilation of annals, on which account, and in order to preserve the general traditions, from the earliest period of the City down to the pontificate of Publius Mucius, each High Priest used to commit to writing all the events of his year of office, and record them on a white surface, and post up the tablet at his house, that all men might have liberty to acquaint themselves therewith, and to this day those records are known as Pontifical Chronicles (*annales maximi* in the Latin text)"

however, was likely restricted and probably had only limited narratives of events.²¹ Even if the *annals* went back to the origins of the Republic, it is possible that some of the earlier entries were reconstructed or that there was judicious tampering with the record in later times. As with all of the early material, doubts abound.²²

The confluence of this material allowed Purcell to argue that the development of the Roman historical consciousness started at least by the end of the sixth century (despite the absence of extended historiographic texts). Rome had active cultural contacts with history-writing cultures already by the fourth century and it seems improbable that the Romans were not interested in their past long before they started writing history.²³ As Wiseman puts it in reference to early Rome: “It is ludicrous to imagine that during the previous half millennium the Romans never reflected on the origins and nature of their community...”²⁴

Other records may also have survived and found their way into our historical traditions. By the first century, for example, Romans had a record of all the consuls for every year of the Republic, called *fasti consulares*, the purpose of which may have been mainly chronological, but which may have given some chronological framework for early Roman history.

Cornell, while discussing the connection between Livy’s narration of early Roman history and the archaeological facts, says:

“That evidence from the archaic age survived into the late Republic and was accessible to historians and antiquarians is beyond doubt. This evidence consisted of monuments, buildings, institutions, and customs that were preserved as relics of the distant past; most important of all were written documents, which we know survived to the late Republic and beyond. The earliest evidence of literacy at Rome dates from the seventh century, and

²¹ See also Gellius, *AN*, II. 28. 6: “His [Cato] words in the fourth book of his *Origins* are as follows: “I do not care to write what appears on the tablet of the high priest: how often grain was dear, how often darkness, or something else, obscured the light of sun or moon.” Of so little importance did he consider it...”

²² Andrew Lintott, ‘Roman Historians’, in eds. Boardman, J., Griffin, J., Murray, O., *The Roman World* (Oxford, 1988), 227; also see Oakley, S., P., *A Commentary on Livy books VI-X*, volume I (Oxford, 1997), 24-27

²³ Nicholas Purcell, ‘Becoming Historical: the Roman Case’, in eds. Braund, D. and Gill, C., *Myth, History and Culture in Republican Rome, Studies in honour of T. P. Wiseman* (Exeter, 2003), 12-34

²⁴ Peter Wiseman, *Remus, a Roman Myth* (Cambridge, 1995), 129

public documents that could be used by historians were preserved from before 500.”²⁵

This, however, clashes with the opening statement in Livy’s second introduction to his *Ad Urbe Condita* regarding the status of sources on early Rome:

“The events covered are unclear because they lie far in the past, rather like objects seen only with difficulty at a great distance. But there is also the added factor that writing, the only thing that keeps a reliable record and other public and private papers was for the most part destroyed when the city burned down. The city was then reborn, from its original roots, as it were, with greater vigor and fecundity, and from that point on, from its second beginning, its history on the home front and in the military field will be presented with greater clarity and certitude”²⁶

Of course we have to consider the possibility that, as mentioned by Livy, the Gallic invasion of 390 caused the loss of any type of written and archival material that predates that event, but, as Stouder suggests: “after the Gallic disaster [...], the sources are henceforth more reliable. His narrative should be more trustworthy for both internal and external affairs.”²⁷ We have thus a dilemma regarding the status and availability of the sources that pre-date the fourth century. We should consider that modern historiography tends to reduce the effects of the Gallic invasion, so there is the possibility that damages to public documents/records were not as severe as claimed by Livy.²⁸ Nevertheless, the very fact that Livy was of the view that few written records of the period before 390 survived should imply that the sources available from that early period were scanty, whether or not this lack of evidence was a consequence of the Gallic sack.

Given the lack of obvious sources, the richness of the narrative account for early Rome that we find in Livy is problematic. It is evident that much of the narrative of early Rome, certainly that of the regal period, had grown through a process of rationalization and accretion of stories, some of which were

²⁵ Timothy Cornell, ‘Livy’s Narrative of the Regal Period and Historical and Archaeological Facts’, in ed. Mineo, B., *A Companion to Livy* (Chichester, 2015), 253

²⁶ Livy, VI. 1

²⁷ See Livy, VI. 1, also see Ghislaine Stouder, ‘From 390 BC to Sentium: Diplomatic and Military Livian History’, in *A Companion to Livy*, 329

²⁸ See Timothy Cornell, *The Beginnings of Rome, Italy and Rome from the Bronze Age to the Punic Wars (c. 1000 – 264 BC)* (London, 1995), 318

probably Greek, over the centuries.²⁹ I place little faith in the stories of the regal period, for instance, as one can see that information such as that relating to the early organization of the army or the census or the constitution were attributed to Servius Tullius, whenever the institutions came into being. Nevertheless, there do seem to be some ghosts in the early accounts, such as the various stories relating to military organization which cannot easily be explained as later rationalizations. Similarly, the introduction of military pay and the associated reforms of the army and the development of Roman colonization would seem to rest on more than the speculations of later historians, suggesting that for the period sometime around 400 the sources available to later historians began to improve.

Most of the material in this thesis concentrates on the period after the fifth century. For the period from c. 400 until the mid-second century, we have the accounts of Livy and Polybius. Their detailed studies provide us with the bulk of our material for the Roman army of the Republic, its deeds, its organization and its evolution. It is no coincidence that the loss of Livy's chronicle that follows the end of the Third Macedonian War, as we will explore more into detail soon, is a major problem in our analysis of the second half of the second century.

Both Polybius and Livy provide considerable detail for much of the third and second centuries BC. Polybius was an eye-witness to some of this history and appears to have access to both records and key individuals during his time in Rome. It is evident that Livy also makes use of Polybius, meaning that they cannot be seen as independent sources. Yet, Livy clearly had other sources since he provides numerous facts not in Polybius: in particular for many of the years under consideration, he details of the number of legions raised, where they were stationed, and war losses. These are an essential starting point for this research, and our analysis of the recruitment system of the Republic. Livy or his source likely found these in some official record, perhaps an annalistic source or records of senatorial decisions, but the regularity with which this material is provided points to a non-literary origin.

It is similar with the demographic records: Livy is our primary source for the census and its returns. We will discuss in more detail the reliability of these figures as demographic data, but it seems likely that Livy (and the references scattered elsewhere in the historical tradition) relate to a report of the census which was recorded somewhere in Rome. The census procedure in itself must have generated significant

²⁹ See Oakley, *A Commentary on Livy*, 85 on the use of Greek stories/materials to a Roman context.

volumes of information and the records must have been available for administrative and legal purposes. It seems also very likely that the religious functions of the census ensured that a report was made publically of the overall number of citizens and that this could be consulted by magistrates at some distance from the original census. The existence of records is different from those records being easily available and properly maintained and ancient historians were not renowned for their archival researches but the transmission of the figures to and within the annalistic record is further evidence of the availability of a body of source material and perhaps documentary material to historians in Republican Rome. The census figures have their problems, and the textual transmission of numbers may be more difficult than that of words, but it seems likely that most of the figures that have come down us were those recorded in the various censuses.

For all their imperfections, these figures are of fundamental importance for this project as they offer us an idea of how the Roman population was changing during the key period of the late third and second centuries (Livy's figures cover Rome's citizen population more or less regularly from 207 to 115). These figures are our starting points in the understanding of Rome's demographic history, but they became even more interesting and important if combined with the number of soldiers in service reported by Livy. Together, this information allows us to suggest plausible recruitment rates, and thus to understand if military service was a burden for Roman citizens or if its negative role might have been overrated.

The third main source I exploit is Appian of Alexandria. He was writing in the later first and early second centuries AD, much later than the events studied in this dissertation. He is, however, our only or most detailed source for many events such as the Spanish wars and the Third Punic War.

Appian forces us to consider the nature of the sources available to him. He was certainly using Polybius.³⁰ It seems probable that Appian worked by compiling and rationalizing earlier historians. Rich suggests that Appian began his history of Rome: "to enhance his own comprehension, and only then decided that others might welcome such an account and accordingly set about writing it up as a history."³¹ We are

³⁰ See Oakley, *A Commentary on Livy*, 13: "...we possess excerpts from the parallel narrative of Polybius: this was used extensively by Livy as a source, and comparison of the two versions tells us much about Livy's techniques..." on Appian see Richardson, J., S., *Appian: the Wars of the Romans in Iberia* (2000), 4

³¹ See John Rich, 'Appian, Polybius and the Romans' War with Antiochus the Great: a study in Appian's sources and methods', in ed. Welch, K., *Appian's Roman History, Empire and Civil War* (Swansea, 2015), 70

thus dependent on Appian's editorial choices and the quality of the largely unknown accounts he relied upon. We also have little idea how many sources were available to him.

There were, of course, a range of sources available to any historian of the Republic and far more than are available to us. The thesis will draw on, just to mention some, Cicero, Cato, Velleius Paterculus, Plutarch, Sallust, Valerius Maximus and Orosius. It is evident that the modern historian must be critical of those sources and the data within the tradition. It may well be that our sources sometimes have simplified or completely misunderstood some of the information that has come down to them. Certainly for the later periods, it seems unlikely that there was a high level of invention in the later sources. Narratives may have been adjusted to suit the moralizing purpose of historians or for dramatic effect. But much of this thesis relies on the transmission of numbers, which might be less liable to plain falsification. Sources may have misinterpreted the numbers that came down to them by, for instance, making assumptions about the size of legions. They may also have exaggerated numbers in certain instances by, for example, assuming that a defeat meant the loss of all soldiers rather than part of an army. Sources might be careless about statistics, caring more about the rhetorical and literary value of a number than its accuracy, which seems particularly the case in the accounts of Cannae (see below). They may also have failed to understand the particular dynamics of loss and recruitment in long campaigns and the balance between Romans and *socii* in the various wars. Nevertheless, where we can compare sources, they are not widely divergent. There is good reason to believe (mostly from Livy) that the Romans cared about the numbers of troops and the numbers of legions and reported losses with some degree of accuracy, and that those reports were preserved. We can, I think, be cautiously optimistic about at least some of the numbers that have come down to us.

For the narrative of our sources, there is again reason to be positive. Undoubtedly, there are specific problems, such as with Polybius's account of the Roman constitution in Book VI, or with Appian's sometimes confused and confusing account of the wars in Spain, and our knowledge of the later second century suffers from an absence of Polybius and Livy, but whereas one would be wise not to put too much weight on a particular anecdote, and I shall discuss the treatment of anecdotal information in relation to the supposed crisis of the mid-second century, the outlines of historical development and the trends exploited in this thesis are not such as to be seriously reliant on particular stories or instances. We can, I think, work with our material.

The following section of this chapter offers a brief analysis of our three main sources.

* POLYBIUS

Born in Achaea towards the end of the third century, Polybius' career as an historian was strongly influenced by the events that followed the defeat of Macedonia in the battle of Pydna (168). Polybius, together with other Achaean political detainees, was taken to Rome where he became mentor and close friend of Scipio Aemilianus. This unique position allowed him to observe Roman affairs and politics, and he aimed to write a pragmatic political and military history in order to describe and explain: "...by what means and under what system of government the Romans succeeded in less than fifty-three years in bringing under their rule almost the whole of the inhabited world..."³²

As a source on the Roman Republic and its rise as the main power of the Mediterranean world, Polybius is very interesting for various reasons: first of all, the central theme of his *Histories* was the rise of a foreign empire, quite unusual for Greek historiography. Polybius' work was not intended for the Romans, but for the Greeks. The main purpose of the *Histories*, in fact, was to offer practical help and suggestions to, we might suppose, Greek leaders and to educate them in the nature of Roman power.³³ The purpose of the work may have shifted after the events of 146 which probably put an end to any hopes of the Achaean states pursuing an independent policy with regard to Rome.³⁴

Any such didacticism co-existed with the broader endeavor to explain and understand the rise of Rome. In many ways, Polybius set his discussion not just in Greek terminology, but in a Greek religious and philosophical context. In Book VI, his description of the Roman constitution owes much to Aristotelean political analysis, importing to Rome a vocabulary used to analyse the varied histories of the Greek *poleis*. The emphasis on *Tyche* (Fortune) also brings a fundamentally Greek idea to play in the historiography of Rome.³⁵

³² Polybius, I. 1

³³ See Arthur Eckstein, *Moral Vision in The Histories of Polybius* (Berkeley and Los Angeles, 1995), 234

³⁴ Walbank, F., W., *Polybius* (Berkeley and Los Angeles, 1972), 27-28; also see Brian McGing, *Polybius' Histories* (Oxford, 2010), 164-167

³⁵ See Baronowski, *Polybius and Roman Imperialism*, 151-152

For the earlier part of his *Histories* (book I and II, focused on the events prior to 220) there are historians who receive special mention, like Aratus Phylarchus on the events in Greece, or Fabius Pictor and Philinus on the Punic Wars. From book III, Polybius appears to have used a greater range of sources and in the case of the Second Punic War is at least aware of Carthaginians as well as Roman sources.³⁶

He may also have consulted official archives; the passage regarding the controversy between Zeno and Antisthenes suggests that he consulted documents himself.³⁷ He may have engaged in some archival work in Rome: his controversial account of Italian manpower, to be discussed at length below, looks to be based on documentary sources. Finally, Polybius gave a great deal of importance to eyewitnesses: "...the only thing left for an historian is to inquire from as many people as possible, to believe those worthy of belief and to be an adequate critic of the reports that reach him."³⁸

Polybius wished to write what he called *πραγματική ιστορία* (pragmatic history), the military and political history of his time enriched with his own practical experience, which would be, above all, useful. Thus, a mere factual narrative was not sufficient: in Polybius' view, the ideal historian should not only search for the truth, but he should be exceptionally well prepared for his task. The historian should have political experience, geographical knowledge and should not rely exclusively on earlier sources, but personally examine archives, inscriptions and treaties.

For these reasons, when he says: "Truth is to history what eyesight is to the living creature."³⁹ We can fully understand his value as an historian and, as a consequence, as a source for us. After all, his role for this thesis is very important because of his narration up to the mid-second century or the Roman military system, while the more "philosophical" part of his *Histories*, absorbed on the rightfulness of the Roman rule, is less relevant for the purposes of this project.

³⁶ See Walbank, *A Historical Commentary on Polybius*, 28-29: on the Carthaginian side famous are the cases of Sosylus of Sparta and Chaereas, whose commentary is defined by Polybius, III. 20 as "...they possess none of the elements of order or of authority which are proper to history, but are pitched at the level of the common gossip of the barber's shop." Another mention to Silenus of Caleacte, who followed Hannibal's expedition together with Sosylus. On the Roman side, other than Fabius Pictor, Polybius also used the history wrote by L. Cincius Alimentus, praetor of Sicily in 210/9 and was captured by Hannibal (see Livy, XXI. 38), or the histories of C. Acilius (see Dionisius of Halicarnassus, III. 67. 5) among others.

³⁷ See Polybius, XVI. 15. 8; also see McGing, *Polybius' Histories*, 93

³⁸ Polybius, XII. 4c

³⁹ Polybius, I. 14. 6

* LIVY

Born in Northern Italy in the city of Patavium, Livy lived during the turbulent and violent period of the Civil Wars and the following reorganization of the Roman world by Augustus. He did not pursue a political career, but devoted himself to writing the history of Rome from its foundation to the age of Augustus.

Livy wrote in the annalistic tradition. He had an eye to the moral, as made clear in the Preface, and the accounts have exemplary qualities.⁴⁰ History, to Livy, was a *monumentum*, literally a “memorial” (contrary to the Greek term *historia* that connotes research or enquiry), as he clearly explains in the Preface of his *Ab Urbe Condita*: “The special and salutary benefit of the study of history is to behold evidence of every sort of behaviour set forth as on a splendid memorial; from it you may select for yourself and for your country what to emulate, from it what to avoid, whether basely begun or basely concluded.”⁴¹

Andrew Lintott portrays Livy as a conservative historian:

“His approach to his subject was conservative, as had probably been traditional among annalists: in war he was patriotic, in politics he supported senatorial authority against the demagoguery of tribunes. Although he shows some sympathy with the plebs in his account of their struggle with the patricians, he shows an immense fascination with aristocratic hardliners who resisted inflexibly any concession to the plebs or deviation from tradition. It is likely that he retained this attitude in his lost books on the fall of the Republic and saw a reason for that fall in the failure of such men.”⁴²

But as with many Roman historians, the absence of an editorial voice in the long accounts of deeds and events means that it is very difficult to detect any overall ideological purpose. Further, since Livy must have worked primarily as a compiler of accounts rather than a composer, the ideological content of the

⁴⁰ See Livy, *Preface*: “My wish is that each reader will pay the closest attention to the following: how men lived, what their moral principles were, under what leaders and by what measures at home and abroad our empire was won and extended; then let him follow in his mind how, as discipline broke down bit by bit, morality at first foundered; how it next subsided in ever greater collapse and then began to topple headlong in run [...]”

⁴¹ Livy, *Preface*

⁴² Lintott, *Roman Historians*, 235

stories he reports may well have predated his version of Roman history. What seems clear is that his history was not meant to be read as a single work, with a beginning, a middle, and a conclusive end, but was intended to be dipped into and extracted from. It was in itself a monumental work, the reading of which would have been a monumental act. In such a context, we are rather safer in exploiting Livy as a source, dipping in and out for our key pieces of information and less at risk of misrepresenting an overall narrative, since there was likely no overall narrative scheme for the work.

Livy's sources were likely quite similar to those of Polybius, although he rarely quotes them.⁴³ From his text it seems likely that Valerius Antias and Fabius Pictor were influential for the accounts of third century and earlier Rome.⁴⁴ Claudius Quadrigatus, Puplius Rutilius Rufus, and Polybius also get mentions, but of these only Polybius survives in any quantity.⁴⁵ Yet, there are differences between Livy and Polybius where we can compare, for instance in the accounts of the Hannibalic War. Livy was clearly not reliant on Polybius for his figures and frequently offers more detailed accounts of numbers. For the early history of Rome, Livy appears to have been generally skeptical, but whereas a modern historian might exclude material about which there was significant doubt, Livy appears to have taken an inclusive approach.⁴⁶

Livy's numbers are often detailed: he reports census figures, number of soldiers recruited for a campaign or casualties after a certain battle. On certain occasions he even mentions differences between citizens and *socii*.⁴⁷ It seems probably that either Livy or one his key sources took the time and the trouble to

⁴³ On Livy's sources also see Oakley, *A Commentary On Livy books VI-X*, 13-20

⁴⁴ As an example, see Livy, XXII. 7 on the battle of Trasimene: "Statistics for the fallen on both sides are many times greater in other authors. Apart from my aversion to the unfounded exaggeration to which historians are all too prone, I have myself accepted Fabius [Pictor] as my main source, since he was contemporary with this war." Regarding Valerius Antias, Livy openly criticizes him on different occasions: see Livy, XXVI. 49; also see Livy, XXXII. 6 on the episode about Publius Villius in Macedonia.

⁴⁵ See Oakley, S., P., 'Livy and his Sources', in eds. Chaplin, J., and Kraus, C., *Livy* (Oxford, 2009), 450-451 for Polybius' influence on Livy.

⁴⁶ See Livy, *Preface*, 6: "The intent is neither to affirm nor refute the traditions that belong to the period before the foundation of the city or the anticipation of its foundation, for these are embellished with poetic tales rather than based on uncorrupted records of historical events."

⁴⁷ See Livy, X. 18: "...the consul Lucius Volumnius had already set out for Samnium with the second and third legions and fifteen thousand allies..." and his chronicle of the Second Punic War has different references to the *socii* and even their numbers: during the recruitment of 218 at the beginning of the war (see Livy, XXI. 17), on the strength of the Roman army at the battle of Trebia (see Livy, XXII. 36) and Cannae (see Livy, XXII. 36), when troops were moved from Campania to Spain after the fall of Capua (see Livy, XXVI. 18) or on the army at the battle of Ilpia (see Livy, XXVIII. 13). Also, Livy, when describing the number of legions required for military campaigns at the beginning of each year, usually mentioned that the *socii* were recruited as well, and, on certain occasions, how many of them.

consult archives. In turn, this also suggests that some form of archival record was maintained from the mid Republic onwards.

Naturally, there is an unknown yet inevitable margin of uncertainty in relying on Livy's figures. Census figures might accurately reflect the number of men appearing at the census, but as demographic data, we must have significant reservations about them. Levels of under-reporting in any modern census are high and even if we assume that Rome's bureaucracy was unusually efficient for an ancient state, one would expect very high levels of under-reporting in Rome's census. As the Roman state grew larger, the material difficulties in conducting a census over a significant territory increased. Further, the material interest in men presenting themselves at the census was probably not great. Consequently, one may expect variations in the rate of under-reporting, but that the rate of under-registration would always be significant. It is not clear how we can account for this. It renders comparative studies of recruitment rates difficult: one could not safely compare the rates of recruitment in the Hannibalic War, for instance, with European mobilization rates for World War I. We are, therefore, always looking at rates of mobilization of available manpower, and perhaps manpower that chose to make itself available, rather than rates of mobilization of total manpower.

For the period after 167 (from the aftermath of the Third Macedonian War), we rely on the *Periochae*, these often brief summaries, are not nearly as informative as the detailed analysis offered by Livy in his complete books, and we are forced to rely on other sources, such as Appian.⁴⁸ For this period, we are in danger of seeing an absence of evidence as conclusive evidence of an absence, as for example in the matter of colonization after the 160s.⁴⁹

* APPIAN

Appian was born in Alexandria, Egypt, but later moved to Rome. He is best known for writing a comprehensive history of the world from the foundation of Rome to the reign of Trajan, but much of that is lost. Richardson comments that: "Appian has mostly been treated as a source of historical information and as a means of access to the lost works of earlier historians rather as a historian in his own right."⁵⁰

⁴⁸ On the *Periochae*, see Yann Le Bohec, 'Roman Wars and Armies in Livy', in *A Companion to Livy*, 122-123

⁴⁹ See Fiona Tweedie, 'The Case of the Missing Veterans: Roman Colonization and Veteran Settlement in the second century BC', in *Historia* 60 (2011), 465-466

⁵⁰ Richardson, J., S., *Appian: Wars of the Romans in Iberia* (2000), 1

Of great importance for this thesis are especially his chronicle of the wars of the second century, in particular the account of the Spanish Wars (*Iberike*); his narrative on the Third Punic War (*Libyka*) is also of great importance, being the only surviving source on these events, and especially because he probably used Polybius' lost eye-witness account (as he accompanied Scipio Aemilianus, he witnessed the destruction of Carthage). Appian's *Civil Wars*, concerned with the internal strife that afflicted Rome between 133 and 30, is also partly significant to us in our discussion on the economy of the second century and the impact of the army and military service.

The main issues regarding Appian is, of course, the fact that his history was written much later than the events that are the core of this dissertation. As Rich says: "Appian was, like most ancient historical writers, almost entirely dependent on earlier historians for his material, and the questions who his sources were and how he used them remain of fundamental importance for understanding his work."⁵¹ On Appian's history of the Republic, Rich concludes that he used mainly two authors: Dionysius of Halicarnassus on the Roman expansion and wars in Italy down to 265, and Polybius on the events between 200 and 146 (and probably a bit later – considering the dating of the chronicle of the wars in Spain).⁵² On the events of the Late Republic narrated in the *Civil Wars*, there was probably a wider range of available sources.⁵³

The negative view on Appian – traceable back to Schwartz in the late nineteenth century – as a mere compiler has been progressively refuted.⁵⁴ Probably one of the most important issues in using Appian as a source is understanding his mentality; after all, as remarked by Richardson: "He was also very much a man of his own time, whose understanding of how the Roman empire come to be was shaped by his own experience of it, as an official of the imperial system as it was in the second century AD."⁵⁵ He had access to sources and, as noted by Rich, was well able to use them, but, ultimately, he was a man of the second century AD trying to understand and explain events of the third and second centuries BC.

⁵¹ Rich, 'Appian, Polybius', 65

⁵² Rich, 'Appian, Polybius', 66-67

⁵³ See Kathryn Welch, 'Appian and the Roman History: a reappraisal', in, *Appian's Roman History, Empire and Civil War*, 10

⁵⁴ Rich, 'Appian, Polybius', 68: "...there is no reason whatever why we should not conceive of Appian himself as capable both of reading Polybius and Dionysius as his primary sources and of using them with a good deal of freedom."

⁵⁵ Richardson, *Appian*, 1

The next and final section of this chapter will be focused on a topic of central importance for this dissertation: the numbers offer to us by the sources, the matter of their overall reliability and how we are able to use them in order to have a better overall picture of the military activity of Rome – especially in terms of soldiers in service or casualties.

One way to approach this question is through direct comparison of the numbers in different historians for the same event. The Second Punic War is probably the best testing since it is one of the few instances when we have multiple sources for single events. For the battle of Cannae, Polybius, Livy and Appian offer different figures for the strength of the Roman army before the battle, and also for casualties. Nevertheless, as we shall see, the numbers are broadly compatible. Here, we look at three other episodes of the Second Punic War: Metaurus (207), Ilpia (206) and Zama (202).

For the battle of Metaurus: none of our sources mention the strength of the Roman army, while Appian indicates the size of the Punic army (48,000 infantrymen plus 8,000 cavalrymen).⁵⁶ According to Livy the Roman and allied casualties were around 8,000 while 54,000 Carthaginians were killed and 5,400 were captured.⁵⁷ Polybius, on the other hand, says that the Carthaginians (and allies) lost no less than 10,000 men while the Roman losses amounted to 2,000.⁵⁸ While we might consider Livy's bulletin on Carthaginian losses exaggerated, and prefer Polybius' report simply on the grounds of a reluctance to accept the more dramatic statistic, such losses are not out of scale with the catastrophic losses at Cannae and Livy claims that the battle had an enormous resonance and importance: "At no time in that war were so many of the enemy killed in a single battle [...], the Carthaginians seemed to have been repaid for Cannae with a disaster of equal magnitude."⁵⁹ Even Polybius writes: "When the news of the victory arrived in Rome, the people at first could not believe it [...], then the whole city was plunged into transports of joy," which is perhaps a surprising response to a battle in which 10,000 enemy were killed.⁶⁰

Furthermore, we have to consider Appian, whose figure of 56,000 is not far from Livy's combined figure of 59,400. There is an obvious and unlikely relationship between the casualties suffered by the

⁵⁶ Appian, VI. 8. 52 regarding the Roman forces at Metaurus simply says that consuls Salinator and Nero combined their forces before intercept Hasdrubal's army, so we may estimate that their army was similar to the Carthaginians' in terms of strength.

⁵⁷ Livy, XXVII. 49

⁵⁸ Polybius, XI. 3

⁵⁹ Livy, XXVII. 49

⁶⁰ Polybius, XI. 3

Carthaginian army (which one might think to be an estimate) and the number of prisoners, which could have been based on a count. But there is no obvious way in which Appian's figure could be derived from Livy. Polybius's figure is the outlier and on historical grounds (the perceived importance of the battle) one might prefer the other figures.

The next case is the battle of Ilpia of 206. Livy offers two different figures for the Carthaginian army and says: "On the number of mounted troops there is pretty much agreement amongst the sources; some, however, record a total of 70,000 infantry being brought to the city of Ilpia."⁶¹ On the number of Roman soldiers under Scipio's command, they are basically the same: 48,000 men according to Polybius, while Livy offers a total of 45,000 men (between citizens and allies – a distinction absent in Polybius' chronicle).⁶² Polybius gives a total for the Punic army of 70,000 infantrymen, 4,000 cavalrymen and 32 elephants. Appian's record is different: while he mentions a major battle during this year, he says that it was fought at a place called Carmone. If we look at his account, however, there are strong similarities with Ilpia, especially in terms of scale, and his description of the Carthaginian army is basically the same of Polybius (75,000 men).⁶³ Very different, however, is the strength of Scipio's army: "That of Scipio was not one-third of the number..." suggesting that the Romans were 25,000 or less.⁶⁴

If we look at the reports of casualties, Livy says that only 6,000 Carthaginians survived the battle – meaning that Punic losses, between dead and prisoners, were between 48,500 and 68,500 –, offering the best sense of how important this victory was for Rome, and the disaster for Carthage.⁶⁵ While Polybius' figures for losses have been lost, he resumes his narration by saying: "...everyone congratulated Scipio on having driven the Carthaginians out of Spain..." highlighting the importance of the victory of Ilpia and its aftermath for the war.⁶⁶ Appian, on the other hand, offers completely different casualties: 800 Romans and 15,000 Carthaginians. Appian consistently uses the name Carmone instead of Ilpia – and we might postulate some confusion in the narrative. Of course, the coincidence of the numbers for the Carthaginian army does not mean that they are accurate, but merely suggests that they were working

⁶¹ Livy, XXVIII. 12 offers two figures for the Punic army: one of 54,500 men, and a second of 74,500 men.

⁶² Polybius, XI. 20 and Livy, XXVIII. 13

⁶³ See Appian, VI. 5. 25: "Now this Hasdrubal collected all the remaining Carthaginian forces in Spain [...]. The total strength of the enemy was 70,000 foot, 5,000 horse, and 36 elephants." Polybius, XI. 20

⁶⁴ Appian, VI. 5. 25

⁶⁵ Livy, XXVIII. 16: "After that it was no longer a battle; it was more like animals being slaughtered [...]. No force of any significance in terms of numbers or strength now remained."

⁶⁶ Polybius, XI. 24a

from the same body of source material. The differences in Appian's account suggests that we should at least be cautious even when our sources agree.

Our final example, is the case of the battle of Zama (202). While none of the sources mention the strength of the Roman or Carthaginian armies before the battle, we can notice interesting similarities and differences on the casualties.

Livy seems to clearly draw from Polybius on this occasion – both report the same losses. Appian offers a slightly different figure, and, perhaps for the first (and only) time, a more detailed account.⁶⁷ He has a larger number of casualties (for the Romans – from the 1,500 suggested by Polybius and Livy to 2,500 – and for the Carthaginians– from 20,000 to 25,000). Very unusually for him, he mentions the Numidians (and that their losses were higher than those of the Romans). Secondly, he discusses the number of prisoners: in his account only 8,500 Carthaginians were captured while both Polybius and Livy suggest around 20,000. Finally, he also mentions deserters, who are completely absent from both Polybius and Livy.

Generally, Livy's numbers seem detailed, and thus have a degree of plausibility. His reports of recruitment and numbers of casualties (mostly from the Second Punic War onwards) suggest a documentary and bureaucratic origin. It seems possible that Roman commanders reported the outcome of a battle, a list of casualties and a list of enemy killed and captured to the senate, and these figures were recorded. On the reliability of these numbers, Hammond suggests that the literary sources could have been close to reality.

He looks at the case of the battle of Pydna (168) in which two Roman legions under the command of the consul L. Aemilius Paullus crushed the Macedonian army.⁶⁸ According to Livy, Roman losses were fewer than 100 dead with more, although he does not say how many, wounded while 20,000 enemies

⁶⁷ Livy, XXX. 35: "More than 20,000 of the Carthaginians and their allies lost their lives that day, and about the same number were taken prisoner [...]. On the winning side there were about 1,500 casualties." and Polybius, XV. 14: "The Romans lost over 1,500 men, but of the Carthaginians more than 20,000 were killed and almost as many were taken prisoner." Also see Appian, VIII. 8. 48: "such was the result of the engagement between Hannibal and Scipio, who here met in combat for the first time. The Roman loss was 2,500 men, that of Masinissa still more. That of the enemy was 25,000 killed, and 8,500 taken prisoners. 300 Spaniards deserted to Scipio, and 800 Numidians to Masinissa."

⁶⁸ Livy, XLIV. 38 doesn't give the numbers of the Roman army, but says that they were outnumbered by the Macedonians, whose, according to Plutarch, *Aemilius Paullus*, 13 and Livy, XLII. 51, were of 40,000 infantrymen and 4,000 cavalry, the greatest Macedonian army ever deployed since Alexander the Great.

were killed and 11,000 were captured.⁶⁹ Hammond reminds us that when their phalanx formation was broken apart, the individual Macedonian soldiers were exposed to the Romans' weapons and fighting skills – very effective at close quarters – making plausible such a slaughter.⁷⁰ Additionally, regarding Pydna – but we might expand this to ancient warfare in general –, Hammond states that “It is a mistake to dismiss the numbers as “incredible” or “propagandistic”. One should take into account the nature of the body-armor, the effectiveness of the weaponry and the advantage of men in formation over broken or fleeing opposition.”⁷¹

The numbers in Livy are sufficiently varied that they cannot stand for “a lot” or “a few”. Polybius' figures are often less precise than Livy, as with the account of the battle of Metaurus, though evidently he had some access to documentary material and does at times take pains to present detailed numerical material, even if not always very clearly, as in the discussion of Italian manpower in II. 24 which we will discuss in the recruitment section. This passage is difficult to reconcile with Polybius's own description of the Roman army in Book VI, which suggests that the army continued to be composed of four legions annually when in 225 the Romans had more than four legions in the field.

Appian's figures should be used more carefully compared with those in Polybius and, in particular, Livy, as there is a general sense of vagueness in his numbers. Though there are a surprisingly high number of figures in his histories, he may sometimes have simplified numbers, being fond of certain numbers – 6,000 in particular – when he is stating casualties. He used 6,000 as a standard number of soldiers per legion in the Roman army for the Late Republic. Casualties of 6,000, as, for example, when he says that Calpurnius Piso was defeated by the Lusitanians and lost 6,000 men, suggest the loss of a legion.⁷² Finally, and most importantly, Appian barely mentions the allies. For the most part, when discussing soldiers, he simply says *Ῥωμαίων* (Romans), making it difficult for us understanding if he is talking about Roman citizens only, Romans and Italian allies, or Romans, Italians and auxiliaries.

We can conclude this preliminary section of the thesis by saying that we are going to trust the sources, while always considering the margin of uncertainty that we have mentioned before. There are three main

⁶⁹ Livy, XLIV. 42; Plutarch, *Aemilius Paullus*, 22

⁷⁰ Nicholas Hammond, ‘The Battle of Pydna’, in *JHS* 104 (1984), 39; also see Plutarch, *Aemilius Paullus*, 20 and his description on how the Roman soldiers overpowered the Macedonians in close-ranged combat.

⁷¹ Hammond, ‘The Battle of Pydna’, 41

⁷² See Appian, VI. 10. 56 on the beginning of the Lusitanian War (155) and the defeat of Calpurnius Piso.

reasons that, after having analyzed our main sources, should be highlighted, especially regarding Polybius and Livy: i) Their figures appear to be based on documents and archival material. The level of precision occasionally showed when describing number of soldiers or casualties can only be achieved through access to government sources. Obviously we can argue about the level of precision of Roman data gathering – specifically in the case of the census figures, as we will see in much more detail later – but, after all, even nowadays we are far from having flawless data; ii) From the sparse occasions in which we were able to compare different sources regarding the same event, we can see that, when dissimilar, the figures they are offering are not conflicting with each other and offering completely dissimilar data (e.g. the case of Metaurus); iii) It seems evident that both Polybius and Livy clearly care about numbers and their precision (contrary to Appian). After all, there are cases when Livy openly criticizes other historians for giving wrong or unbelievable figures.

For these reasons we are going to maintain a more positive attitude when analyzing the sources and the figures they are offering, distancing ourselves especially from Brunt and his model, clearly skeptical about the figures in the sources – Livy in particular.⁷³

⁷³ Tim Cornell, 'Hannibal's Legacy: the Effects of the Hannibalic War on Italy', in eds. Cornell, T., Rankov, B., and Sabin, P., *The Second Punic War, a Reappraisal* (London 1996), 104 on Brunt's skepticism on the sources.

Chapter 2

ROMAN MILITARY PAY

In this chapter it is my intention to examine the *stipendium*, the payment of the Roman soldiers from its origin and to highlight how it changed over the centuries. I start by analyzing the controversial introduction of the military *stipendium*. Extending my analysis, I will highlight the events that changed the *stipendium* after its introduction to the Punic Wars and, after these conflicts, I will concentrate on the Late Republic period, in particular on Caesar, who introduced the last modifications to military payment documented by the sources that will last until the reign of emperor Domitian.

The origin of the Roman army dates back to the foundation of the city and the Regal Era, but there are many doubts on when it was decided to introduce a form of payment for the service of the soldiers. Both Livy and Diodorus, two of our main sources for this period, agreed that the *stipendium*, the military payment, was introduced during the siege of Veii (406 – 396).⁷⁴ This date is generally accepted by modern historians – such as Parker, Keppie, Crawford, Cornell, Erdkamp and Sage – and it can be connected to the beginning of the gradual transformation of the army from a Greek-style hoplite army to the new manipular army. This new army required less expensive equipment and this allowed the Romans to recruit from a broader social base (we will explore the recruitment system in the next chapter).⁷⁵

Strictly connected with military pay is the introduction of coinage to Rome, but Roman coinage considerably post-dates 406. Our earliest source on how much Roman soldiers actually received is Polybius, but he describes a fully monetized system which cannot have been applied to early Rome.

The production and the use of coinage in Italy had been mainly limited to the Greek *poleis* and their *chorai* in Magna Graecia since the sixth century. It is likely that bullions circulated prior to the

⁷⁴ On the connection between the war against Veii and the introduction of military payment, see Livy, IV. 59-60; and Diodorus, XIV. 16, 5 and Plutarch, *Camillus*, II. 7

⁷⁵ Henry Parker, *The Roman Legions* (Oxford, 1928), 11; Lawrence Keppie, *The Making of the Roman Army, from Republic to Empire* (London, 1984), 18; Crawford, *Coinage and Money*, 21-24; Cornell, *The Beginnings of Rome*, 187; John Rich, 'Warfare and the Army in the Early Republic', in ed. Erdkamp, P., *A Companion to the Roman Army* (Malden, 2007), 18; Michael Sage, *The Republican Roman Army, a Sourcebook* (New York, 2008), 139

introduction of coinage in various parts of Italy; it required a trust in the purity of the metal, a set of scales, and a relatively standardized system of weights. In archaic and early classical Etruria, for example, the main form of mobile wealth was uncoined copper. Coinage, as a form to measure value, store wealth or facilitate exchange, is a more sophisticated tool in comparison to bullion; it is also a simpler way to allow the circulation of precious metals. Furthermore, coinage represents authority, as its weight was regulated, and had a design stamped on one side or both. The stamp on a coin indicated that the issuing authority, normally a state or its representative(s), would accept it as the legal equivalent of some value previously expressed in terms of other objects, including metal by weight. This remained a Greek phenomenon until areas of Italy like Etruria, Latium and their neighbours (Umbria, Picenum and the Oscan areas) began to produce their own coinage, but not earlier than the end of the fourth century.⁷⁶ Furthermore, it was only as a result of the Roman conquest of Italy that many communities began to mint coins while existing mints continued to operate, but under Roman influence.⁷⁷

Therefore, regarding the *stipendium*, various alternatives have been offered: Sage suggests that payment could have been given in kind; Rich suggests that soldiers received weighed bronze which would seem an obvious explanation of the use of the word '*stipendium*' for military payment.⁷⁸ This system presumably depended on a weight of bronze being offered for a term service and there may or may not have been a fixed daily rate in the earliest period. Such a system required very limited institutional and technological expertise and could fulfil many of the exchange requirements for the Roman state and people. As the demands on the Roman state expanded, however, with the expansion of military operations in the second half of the fourth century, the system probably started to seem cumbersome and probably open to dispute and thus in need of reform.⁷⁹

It is likely that bullion circulated in Latium before coinage was adopted. Crawford describes Rome as a state without a coinage, but, as he adds, 'a state without coinage is not a state without money'.⁸⁰ The sources normally attribute the introduction of coinage to the Regal Era. Pliny is probably the most interesting: he states that the beginning of the production of bronze coinage started with king Servius

⁷⁶ Crawford, *Coinage and Money*, 1

⁷⁷ Crawford, *Coinage and Money*, 3 suggests that coinage in Etruria really began to spread during the third century, after most of its territory was occupied by the Romans

⁷⁸ Sage, *Republican Roman Army*, 139; Rich, 'Warfare and the Army', 18

⁷⁹ See Rich, 'Warfare and the Army', 18

⁸⁰ Crawford, *Coinage and Money*, 17

Tullius, and that, before him, the Romans accumulated masses of bronze without measuring it.⁸¹ Roman tradition associates much of the major political development of the regal period to Servius Tullius.⁸² Varro claims that Servius Tullius introduced silver coinage to Rome and that the introduction of coinage dated back to Numa Pompilius, the second king of Rome.⁸³ Livy seems to assume coinage in the campaign against Pometia (502), when the Romans auctioned their war prisoners.⁸⁴ Also, he tells that in 475, after a war against Veii, grain was imported from Campania and he mentions that T. Menenius was fined 2,000 *asses*.⁸⁵ The version of the Twelve Table of 450 transmitted to us, mostly through later sources, mentions a pecuniary penalty for the punishment of the crime of *iniura*, the infliction of injuries.⁸⁶ People guilty of crimes such as the breaking of a limb (*membrum ruptum*) or the fracture of a bone (*os fractum*) had to pay a penalty of 300 *asses* if the victim was a free man or 150 *asses* if the victim was a slave.⁸⁷ Gaius adds that for any other *iniuriae* – like blows such as do not result in serious injury – the penalty was of 25 *asses*.⁸⁸ However, Festus attests that the word *asses* did not appear in the text of the Twelve Tables and it seems likely that Gaius, writing in the late first century AD, or some of the sources on which he relied interpolated the term into their accounts.⁸⁹ These references suggest that ancient historians of early Rome found it difficult to conceive of a relatively complex state which did not have money. There is an accumulation of evidence (slight though it is) for Rome having some sort of monetary system by the mid-fifth century probably based on copper bullion.

The introduction of payment for military service at the end of the late fifth century did not necessitate the introduction of coinage. The payment system was probably rudimentary and dealt with quite small sums of bullion. Rome fought mainly short, local campaigns, but with the long campaigns against the Samnites, the demands on the soldiers and the state increased. It was probably as a result of the increased

⁸¹ Pliny, *NH*, XXXIII. 42-44: “King Servius was the first to stamp a design on bronze; previously, according to Timaeus, at Rome they used raw metal.”

⁸² Livy, I. 41 says Servius Tullius became king after the death of his predecessor Tarquinius Priscus. Livy, *Per.*, 1-2 states that Servius was killed after forty-five years and Tarquinius Superbus took his place, and ruled for twenty-five years until he was overthrown in 509 by a group of aristocrats led by Brutus. Taking the foundation of the Republic as main reference, Servius Tullius became king in 579 and died in 534, but, as we said, there is a heavily fictional element in the sources regarding this period of Roman history.

⁸³ See Crawford, *Coinage and Money*, 18; however, Pliny, *NH*, XXXIII. 42 says: “The Roman nation did not even use a stamped silver coinage before the conquest of King Pyrrhus.”

⁸⁴ Livy, II. 17

⁸⁵ Livy, II. 52

⁸⁶ Gaius, *Institutiones*, III. 223-225

⁸⁷ Herbert Jolowicz, *Historical Introduction to the Study of Roman Law* (Cambridge, 1932), 174

⁸⁸ Gaius, III. 223

⁸⁹ Michael Crawford, *Roman Statutes vol.2*, in *Bulletin of the Institute of Classical Studies* (1996), 606

level of payments (though not necessarily the rates paid to the soldiers) that the state required the introduction of regular coined bullion. It is also possible that with increased economic contact with monetarized societies, such as the Etrurians and the Greeks of Campania, the advantages of coined money were more apparent.

From the late fourth century, Rome started to mint its own coinage. Crawford writes: "...the earliest Roman coinage consists of silver and token bronze fractions on the Greek model and cast bronze coins based on an as or unit weighing a Roman pound or thereabouts."⁹⁰ Cornell suggests that these early coins were not even minted at Rome, but at Naples after the treaty between the two cities of 326.⁹¹ Pliny, on the other hand, dates the introduction of silver coinage to 269, though it is likely that he is talking about the *didrachms*, rather than the *denarius*.⁹²

The introduction of military pay c. 406 is likely to be associated with a thorough reorganization of the Roman army and the recruitment system. The *stipendium* was intended as a form of compensation. It made it possible for poorer citizens to remain in the army for longer periods. It allowed the state to mobilize greater numbers of its citizens for military service. The association of the *stipendium* with the war with Veii makes sense since the war supposedly placed Rome under heavy military pressure and the need to increase manpower was imperative. The war with Veii was just the first of a long series of conflicts fought by the Republic: it was soon followed by the Gallic invasion, more campaigns in Latium, and in Campania.

The recruitment system is closely associated with the census which introduction is usually attributed by the sources to Servius Tullius. It seems likely that later Romans could not imagine a developed city state without a census system and consequently the census was attracted to the regal period and to the establishing of a constitutional system by Servius Tullius.

⁹⁰ Crawford, *Coinage and Money*, 28

⁹¹ Also see Cornell, *Beginnings of Rome*, 394

⁹² Pliny, *NH*, XXXIII. 44: "Silver was first coined in the 485th year of the city, in the consulship of Quintus Ogulnius and Gaius Fabius, five years before the First Punic War. It was decided that the value of a *denarius* should be worth ten pounds of bronze, that of a half-denarius five pounds, that of a sesterce two pounds and a half. The weight of a standard pound of bronze was however reduced during the First Punic War, when the state could not meet its expenditure, and it was enacted that the as should be struck weighing two ounces."

The Servian system divided the Roman citizens into classes according to their wealth. It further divided the citizenry into smaller groups called centuries and then subdivided these by age into *iuniores* (between 17 and 45) and *seniores* (between 45 and 60).⁹³ The main purpose of this reform was to organize the population for war. The logic of the timocratic division was to ensure that the citizens could arm and equip themselves at their own expense. The *iuniores* probably formed the core of the army that fought on the front while the *seniores* were a sort of reserve that defended the city in case of emergency.

According to Livy and Dionysius, the hierarchy of the Roman classes can be summarized in the following way:

CLASS	PROPERTY RATING (in <i>asses</i>)
1 st	100,000
2 nd	75,000
3 rd	50,000
4 th	25,000
5 th	11,000 (Livy) / 12,500 (Dion.)

It is generally agreed that this system was not introduced by Servius Tullius.⁹⁴ Cornell suggests that the introduction of the five classes should be linked to the introduction of military payment and in particular with the introduction of taxation to meet the wage bill:

“Is it possible to date this reform? The most probably answer is that it occurred at the end of the fifth century, and that it is connected with an innovation recorded by Livy under the year 406 BC. That was when the Roman state first began to pay wages to its soldiers, to compensate them for loss of income during prolonged campaigns, and it was then that the *tributum* was first imposed.”⁹⁵

Previously, the Roman state probably needed to know how many men it had capable of bearing arms and of equipping themselves so to do. It is possible that there was some form of early census, but the earliest figure in the sources, the 80,000 male citizens reported from Fabius Pictor by Livy, is difficult to believe

⁹³ Livy, I. 42-43; Dionysius, IV. 16-18

⁹⁴ Cornell, *Beginnings of Rome*, 180

⁹⁵ Cornell, *Beginnings of Rome*, 187

(although Coarelli suggests to be not too hasty in ignoring it).⁹⁶ For the earliest army (presumed to be a hoplite force), there was no need for the complexities of the Servian system. But the introduction of military pay and a probable reorganization of the army (see below) it seems likely that the proportion of the citizenry on which the military could draw would be increased. Consequently, the state needed a finer division of the citizenry. It is also likely that taxation required more detailed information and division of the citizen body into broad wealth bands. For such reasons, it seems likely that the Servian system related closely to the reforms of c. 406 BC.

This seems to be the view of most historians and the *tributum* does seem to be linked closely to military adventures.⁹⁷ Crawford argues that taxation in Rome began with the introduction of pay.⁹⁸ Cornell links taxation to the census.⁹⁹ According to Peter Brunt ‘the annalists suggest that the burden of conscription was augmented by the simultaneous levy of taxes’.¹⁰⁰ Livy suggests that those citizens who were not in the army were liable to pay the *tributum*.¹⁰¹ Nicolet, however, suggests that *stipendium* and *tributum* were incompatible since it is unreasonable to pay the soldiers from the tax levied on their families. Yet, if the *tributum* was an alternative to service, it would reflect the general obligation on all men to serve, and a reform whereby some paid money rather than serving themselves.

After the Pyrrhic War and the fall of Tarentum (272), Rome became the undisputed ruler of peninsular Italy; by this time Carthage, the powerful merchant city on the Bay of Tunis, was the only other major power left in Western Mediterranean. Roman military ascendancy in the West was assured by the battle of Zama in 202. The fiscal strains of the Second Punic War led to reform of coinage in Italy: Crawford

⁹⁶ Livy, I. 44; see Filippo Coarelli, ‘Demografia e Territorio’, in eds. A. Momigliano, A. Schiavone, *Storia di Roma* vol. I (Torino, 1988), 318-319 and 322-323

⁹⁷ On the introduction of the *tributum* see Varro, *On the Latin Language*, V. 181 and Dionysius, IV. 19, 1 – 4, however, this passage by Dionysius is anachronistic at least because it dates the introduction of the military pay to the sixth century.

⁹⁸ Crawford, *Coinage and Money*, 21

⁹⁹ Cornell, *The Beginnings of Rome*, 187

¹⁰⁰ Brunt, *Italian Manpower*, 641

¹⁰¹ Livy, V. 10: “But the increase in the number of soldiers necessitated an increase in expenditure to pay them. Tribute was being collected for this purpose, but those remaining at home proved unwilling contributors, since in defending the city they had to discharge obligations both to the military and to the state. [...] the senators had instituted military pay so that they might crush some of the plebs by military service, the rest by taxation.” Claude Nicolet, *Tributum: Recherches sur la Fiscalité Directe sous la République Romaine* (Bonn, 1976), 33: “Cela confirme ce que nous avons dit: les mobilisés, ceux qui ont été choisis dans le dilectus, et qui vont recevoir le solde, ne payent pas. Solde et tributum sont, dans un sens, incompatibles.”; Nathan Rosenstein, *Rome at War* (2004), 54: “More important, the *tributum* was a kind of transfer payment owed by those assidui who did not serve to those who did.”

writes that ‘the complete collapse of the Roman monetary system was followed by the creation ex novo of the denarius system, which lasted with minor modifications until the third century AD’.¹⁰²

Military payment *per se* was not altered however and was almost certainly organized as described by Polybius (see below).¹⁰³ The Republic faced several financial vicissitudes and the spread and confusion of coinage made the situation more complicated for Rome. In 215 the *tributum* was imposed twice by the senate, and, at the same time, the soldiers in service in Spain had to find a way to seize money from the Spaniards to maintain the army and its operations.¹⁰⁴ Over the next years, as an emergency procedure, it was decided that wealthy individuals should assist the state in the payment of the *stipendium* of the sailors of the fleet.¹⁰⁵

With the surrender of Carthage, Rome was left as the only major power in the Western Mediterranean. Subsequently, Rome extended her power eastwards, bringing vast wealth and territory to the Roman state.¹⁰⁶ As a consequence, the *denarius* became the most important silver coin in the entire Mediterranean.¹⁰⁷ Nevertheless, bronze coinage continued to be important. Most of the hoards from the Late Republic are late third- or early second-century asses suggesting that the first half of the second century saw a peak in bronze production, almost certainly for military pay.¹⁰⁸ In 157, the exploitation of the silver mines of Macedonia allowed the production of large quantities of silver coinage. This was followed by the retariffing of the ratio between *as* and *denarius* to 16:1 instead of the previous 10:1 as recorded by Pliny.¹⁰⁹

The new wave of silver coinage also influenced military pay. At some point, the soldiers started to receive their *stipendia* in *denarii*, though it was still computed in *asses*. Pliny, *NH*, XXXIII. 46, notes that even after the change in the *denarius* ‘in the pay of soldiers one *denarius* has always been given for ten asses’.¹¹⁰ This

¹⁰² Crawford, *Coinage and Money*, 57-58

¹⁰³ See Polybius, VI. 39

¹⁰⁴ On the double taxation, see Livy, XXIII. 31; Livy, XXIII. 48 reports the letter of the Scipios regarding the difficulties in Spain in terms of payment and supplies.

¹⁰⁵ Livy, XXIV. 11

¹⁰⁶ Crawford, *Coinage and Money*, 84

¹⁰⁷ Crawford, *Coinage and Money*, 144; 53-55 shows that the legend *ROMA* begun to disappear from the *denarii* from 179 onwards: ‘The coinage of the ruling power no longer needed to be identified’.

¹⁰⁸ Crawford, *Coinage and Money*, 72 and 260-261

¹⁰⁹ Pliny, *NH*, XXXIII. 45: “...it was enacted that the exchange-value of the denarius should be sixteen asses, of the half-denarius eight and of the quarter-denarius four; by this measure the state made a clear gain of one half.”

¹¹⁰ Pliny, *NH*, XXXIII. 46

rather odd regulation shielded soldiers from the consequences of the changed tariff. It suggests that at the point of change the soldiers were already being paid in *denarii* and consequently the changed tariff had the potential to considerably reduce military pay. It further suggests that the daily rate (in *asses*) was such as to allow an annual rate to be paid in an exact number of *denarii*. According to both Tacitus and Suetonius, the *stipendium* was still computed in *asses* during the age of Tiberius and Domitian.¹¹¹ Pliny, however, never mentions how much Roman soldiers were actually paid. For this, we have to rely on the problematic and much discussed description offered by Polybius for the third or second century:

“For his pay the infantryman receives two *obols* a day, the centurion twice this amount, and the cavalryman a *drachma*. An infantryman’s grain allowance is about two-third of an Attic *medimnus* of wheat per month, and a cavalryman’s seven *medimni* of barley and two of wheat. An allied infantryman receives the same as his Roman counterpart, while an allied cavalryman’s ration is one and a third *medimni* of wheat and five of barley. These rations are provided free to the allies, but in the case of Roman troops the quaestor deducts from their pay the cost, at the stipulated rate, of their grain, clothing and any additional weaponry they may need.”¹¹²

As agreed by most historians, we have to assume from this passage that Polybius assumes that the Roman *denarius* (of 10 *asses*) had the same value of the *drachma*.¹¹³ However, an element of discussion regarding this passage has been what type of drachma Polybius is referring to, due to the different ratios when compared with the Roman *denarius*. Mattingly, for example, argued that Polybius was talking in terms of Aeginetic *drachmae*, the currency used by the Achaean League.¹¹⁴

An Aeginetic *drachma* weighted 6.3 grams against the 4.5 of a Roman *denarius* (meaning that this drachma was equal to one denarius and a quarter), plus, Mattingly suggests that 2 *obols* were equal to 4 *libral asses*, we could translate Polybius’ figures as in the following table.

¹¹¹ Tacitus, *The Annals*, I. 17 specifically says that the pay of the soldiers during the Julio-Claudian period was ten *asses* a day: “Indeed a soldier’s life was hard and unrewarding, he said. Body and soul, he was worth ten asses a day...”; Suetonius, *Domitian*, 7

¹¹² Polybius, VI .39

¹¹³ George Watson, ‘The Pay of the Roman Army, the Republic’, in *Historia* 7 (1958), 113; Crawford, *Coinage and Money*, 146

¹¹⁴ Harold Mattingly, ‘The Property Qualifications of the Roman Classes’, in *JRS* 27 (1937), 102

Category	Payment in Greek currency	Payment in Roman currency
Infantryman	2 <i>obols</i> per day	4 <i>asses</i> per day
Centurion	4 <i>obols</i> per day	8 <i>asses</i> per day
Cavalryman	1 <i>drachma</i> per day	12 <i>asses</i> per day

These figures are, however, criticized by Watson, who suggests that the ratio of 2 *obols* = 4 *libral asses* was re-tariffed to 2 *obols* = 5 *sextantal asses*.¹¹⁵ Thus the fraction of the denarius would be simplified to 5, 10 and 15 *asses* (0.5, 1 and 1.5) suggesting the following pay for the army:

Category	Payment in Greek currency	Payment in Roman currency
Infantryman	2 <i>obols</i> per day	5 <i>asses</i> per day
Centurion	4 <i>obols</i> per day	10 <i>asses</i> per day
Cavalryman	1 <i>drachma</i> per day	15 <i>asses</i> per day

Such complex models work on the perhaps unlikely possibility that Polybius was using Achaean currency rather than the more standardized Attic *drachma*.¹¹⁶ Crawford simplifies this matter by highlighting the conventional equivalence between the Attic drachma and the Roman denarius.¹¹⁷ As 2 *obols* are one third of a *drachma*, we should apply the same process to its Roman counterpart, thus that soldiers received one third of a *denarius* per day, so 3 *asses*.¹¹⁸

Category	Payment in Greek currency	Payment in Roman currency
Infantryman	2 <i>obols</i> per day	3 <i>asses</i> per day
Centurion	4 <i>obols</i> per day	6 <i>asses</i> per day
Cavalryman	1 <i>drachma</i> per day	9 <i>asses</i> per day

The first variation mentioned by the sources is that of Caesar who, according to Suetonius, doubled the *stipendium* of the soldiers.¹¹⁹ Tacitus' reports that one of the demands of the mutineers of AD 14 was a *stipendium* of one *denarius* per day instead of ten *asses*. This produces an annual rate of 225 *denarii* per year.¹²⁰ At some point, pay must have moved from a 10:1 *as* to *denarius* ratio to the normal 16:1, but this

¹¹⁵ Watson, 'The Pay of the Roman Army', 114

¹¹⁶ Crawford, *Coinage and Money*, 146

¹¹⁷ Crawford, *Coinage and Money*, 147: "I continue in the meanwhile to regard a third of a denarius as what Polybius meant."

¹¹⁸ Also See Dominic Rathbone, 'The Census Qualification of the *assidui* and the *prima classis*', in eds. H. Sancisi-Weerdenburg, R. J. Van der Spek, H. C. Teitler, H. T. Wallinga, *De Agricultura, in Memoriam Pieter Willem de Neeve* (Amsterdam, 1993), 151-152

¹¹⁹ Suetonius, *Julius Caesar*, 26: "Legionibus stipendium in perpetuum duplicavit."

¹²⁰ Tacitus, *Annales*, I. 17; also see Richard Alston, 'Roman Military Pay from Caesar to Diocletian', *JRS* 84 (1994), 114

can only have happened at the moment of a pay increase (that is under Caesar).¹²¹ It seems likely that Caesar's reform not only tripled the daily rate, but it also standardized the payment, as it established the standard imperial system of 3 *stipendia* (of 75 *denarii*) per year. The effect was move annual pay from 108 *denarii* to 225 *denarii*, a complex reform that Suetonius can be forgiven as simplifying as '*duplicavit*'.¹²²

There are contrary views: Mattingly suggests that the revaluation might be dated to the age of the Gracchi, and even to Gaius Gracchus' tribunate (123); Crawford dates it earlier to the 140s when the mark XVI started to appear on the *denarii*.¹²³ The reform could be linked to Gaius Gracchus' *lex militaria*.¹²⁴ This law provided soldiers clothing free of charge from the state, which might have allowed some recoup of costs. Nevertheless, moving the 3 *asses* per day to the 16:1 ratio would have entailed a politically unpopular reduction of annual pay to 67.5 *denarii*. On 4 *asses* per day, the annual pay would be the more comfortable 90 *denarii*. On the lower rate, we would need to assume a failure of Suetonius' arithmetic. The higher rate does not translate neatly into the known Caesarian rate either.

Up until now we have discussed and analyzed the payment of Roman soldiers, but Roman armies were also made by contingents of allied troops recruited among the Latin and Italian communities. Polybius is the only source who actually mentions remuneration of the allies, which was in terms only of supplies.¹²⁵ This strongly suggests that Rome did not pay these troops and any payment they did receive would have been from their home communities.¹²⁶ It is possible that 'the Roman model' was adopted, which would be an incentive for various communities to mint coins on the Roman weights.¹²⁷ Of course, the role of the allies in the Roman army, and their payment, changed after the Social War.¹²⁸

* The *stipendium* and the economy

¹²¹ Pliny, *NH*, XXXIII. 45

¹²² Alston, 'Roman Military Pay', 114

¹²³ Harold Mattingly, 'The Retariffing of the Denarius at Sixteen Asses', in *Numismatic Chronicle* (1934), 86-90; Crawford, *Coinage and Money*, 144-145

¹²⁴ Plutarch, *Gaius Gracchus*, 5

¹²⁵ Polybius, VI. 39: "An allied infantryman receives the same as his Roman counterpart, while an allied cavalryman's ration is one and a third *medimni* of wheat and five of barley. These rations are provided free to the allies..."

¹²⁶ Livy, XXVII. 9, on the occasion of the twelve colonies that refused to support the military need of the Republic during the Second Punic War in 209, says: "...for they had neither soldiers for conscription, nor money to be given as soldiers' pay."; also see Claude Nicolet, *Le Stipendium des Allies Italiens*, in *Papers of the British School at Rome* vol. XLVI (1978), 2-3

¹²⁷ Livy, VIII. 8 states that, by the time of the Latin War, the Latins fought in maniples just like the Romans.

¹²⁸ See Crawford, *Coinage and Money*, 187

It is likely that the introduction of military pay in Rome had fiscal and economic consequences. Most obviously, the state needed to meet the costs of pay; paying for the soldiers likely became the main expense for the Republic. It may have encouraged Roman generals to seek cash from conquered communities in part to meet the pay bill. Further, the administrative requirements of providing significant bullion to large numbers of soldiers led Rome to finally adopt coinage, centuries after its introduction into Italy. The distribution of a simple means of exchange would have had economic effects, easing trade and exchange in ways which allowed the development of economic complexity.¹²⁹ It is likely that the *stipendium* was set at a very low level, compensating soldiers for their time in service and perhaps rewarding them at a level above subsistence. The *stipendium* was the most basic benefit offered by the army to the potential recruits, perhaps alluring to the poor or very poor. If soldiers were to accumulate wealth from service, it would come through booty or through land. It was this last which had potentially the most significant potential for improving the lot of the Roman poor. Colonisation, of course, depended on victory. This is an issue to which we shall return towards the end of the thesis.

The macro-effects of military payment depend largely on the numbers of soldiers recruited (both in relative and absolute terms). It is this issue that we now turn.

¹²⁹ See Paul Erdkamp, *The Roman Army and the Economy* (Amsterdam, 2002), 7-8

Chapter 3

THE RECRUITMENT SYSTEM OF THE ROMAN ARMY

Part 1: from the origins to the third century

In this chapter of my dissertation, it is my intention to analyze the recruitment system of the Roman army, how it was organized until the third century BC and the period immediately before the Second Punic War and finally, to try to understand the extent of the burden on Roman citizens.

In order to do this, I will examine the constant changes in the structure of the Roman army, focusing on the recruitment process, from its earliest days. At first, the Roman army was a force organised around the tribes and it was progressively transformed into a civic army especially after the reforms attributed to Servius Tullius. Those reforms introduced a hoplite organisation, drastically changing the army and the political ordering of the entire of Roman society. The siege of Veii and the Gallic invasion, appear to have triggered a further series of changes that led to the progressive abandonment of hoplite warfare and the introduction of the manipular system which required a completely different recruitment system.

In the second part of the chapter, I focus on an estimate of the actual Roman military manpower and relate that to population levels using mainly primary sources, especially the census figures and other literary evidence, but also some estimates of population drawn from the capacity of the territory in order to understand the burden of military service on Roman citizens and what proportion were actually recruited in the army. In order to do this, we will also briefly examine the actual census practice by looking at how it was planned, how was included – the matter of *assidui* and *proletarii*, but also the position of the freedmen. This is key information for assessing the economic importance of military service in the third century BC.

The third section of this chapter analyzes the passage of Polybius on Roman military organization focusing on recruitment in order to understand how it worked. Polybius provides us with one of the best descriptions of the army during the Republic. I also analyze the recruitment system for the allies and conclude this part with a discussion on the much debated passage Polybius, II. 24 regarding the

manpower of Rome and its allies in the late third century. I argue that this passage is a useful beginning from which to calculate manpower on the verge of the Hannibalic War.

The final part of this chapter will be briefly focused on the ratio between Romans and allies in the army.

* The army of the monarchy and the Early Republic

In the earliest days of the regal era – eighth, seventh century –, the Roman army was probably little different from those of the other communities in Latium. Calling these forces “armies” is possibly to give them a greater sophistication that they deserve since, as suggested by Keppie, they were probably more like armed bands of a few hundred men raiding their neighbours’ territory.¹³⁰

All the armies in ancient Latium were influenced in their equipment and tactics by their more powerful northern neighbours: the Etruscans, the dominant force in central Italy at the time.¹³¹ According to literary tradition, in which we can place very little value, from the reign of Tullus Hostilius the Romans tried to assert their supremacy over the other Latin communities. We may suppose that conflicts occurred most years and that the military situation, as well as political organisation, was fluid. Tradition suggests that war was a regular – annual – occurrence for the Romans: rituals were held in March, at the beginning of the campaign season, and in October, to celebrate its end. These wars were not necessarily a means of expansion (and we may wonder whether these early cities had the political sophistication to control extended territories), but for seventh and sixth century Rome, wars were probably one of the more important – though not only – source of moveable wealth: Livy, Dionysius and Cicero suggest that the great temple on the Capitol was built thanks to the spoils from the capture of Pometia, later known as Satricum.¹³²

The army of the regal period was supposedly, according to our much later sources, organized around the three tribes – the Ramnes, the Tities and the Luceres¹³³ – and divided into thirty smaller units called

¹³⁰ Keppie, *The Making of the Roman Army*, 14

¹³¹ Livy, I. 8 says that the Romans adopted many customs from the Etruscans, so we can suppose that also the army was influenced by them.

¹³² Livy, I. 53; Dionysius, IV. 50. 4 and Cicero, *Rep.*, II. 44

¹³³ It is commonly believed that the three tribes represented the three major ethnic groups who formed the population of early Rome (Romans, Sabines and Etruscans), however, Tim Cornell, ‘Ethnicity as a factor in early Roman History’, in eds. Cornell, T. and Lomas, K., *Gender and Ethnicity in ancient Italy* (London, 1997), 15-17 casts doubts on the importance attributed to

curiae, ten to each tribe. Each of the *curiae* supplied the army with a *centuria*, a force of 100 men for a total of 1,000 for tribe under the command of a *tribunus*, a tribal officer.¹³⁴ The whole strength of the army was of 3,000 infantry soldiers who formed the *legio* – levy or levying – while the aristocrats formed a force of 300 *equites*, knights. Finally, the troops were recruited only among male citizens who had sufficient means to equip themselves for service. It was, it seems, a relatively aristocratic army, probably drawn from a fairly small proportion of the Roman male population.

Varro suggests that Roman territory was divided among Romans, Sabines and Etruscans, the groups who formed Rome's population, but it seems unlikely that Rome, and especially the army, was organised on ethnic lines.¹³⁵ Cornell says that: "The idea that three different ethnic groups each formed ten *curiae*, and that the army consisted of equal units of Romans, Sabines and Etruscans is absurd"¹³⁶. There is no discernible trace of ethnic division in the accounts of the early empire. The tribal organization of the early army, if not entirely mythical, is likely to reflect an early civic structure in which the population was divided into three units. There is, however, a trace of possibly an alternative or even an earlier mode of military organization in the account of the Fabii and their role at the battle of Cremera of 475.¹³⁷

This episode, almost certainly embellished by Roman historians and perhaps even invented by a later pro-Fabii writer, is confusing in military terms because it seems completely out of place: at the time of the episode of the Cremera, perhaps around the 470s, the Roman army should have been already reformed by the Servian constitution, but the action of the Fabii appear more like an event from the archaic period, reflecting "heroic" warfare in which one can imagine raising a band of aristocrats and their retainers.

The *gentes* (clans) were certainly important in the early Roman society, as suggested by Smith, although the sources are not clear on the nature of these *gentes*.¹³⁸ They are mentioned in the Twelve Tables, where

ethnicity by modern scholars. Also see Guy Bradley, 'Tribes, States and Cities in Central Italy', in eds. Herring, E., and Lomas, K., *The Emergence of State Identities in Italy in the first millennium BC* (London, 2000), 117

¹³⁴ Livy, I. 13 and Dionysius, II. 7

¹³⁵ Varro, *LL.*, V. 55; he also says that the names of the tribes are Etruscan words that suggests the strong Etruscan influence over archaic Rome.

¹³⁶ Cornell, *The Beginnings of Rome*, 115

¹³⁷ Livy, II. 50, Dionysius, IX. 15 and Diodorus, II. 53. 6; also see James Richardson, *The Fabii and the Gauls* (Stuttgart, 2012), 81-83

¹³⁸ Christopher J. Smith, *Early Rome and Latium, Economy and Society c.1000 to 500 BC*, (Oxford, 1996), 189; on the *gentes* and their role in Roman society see Nicola Terrenato, 'The Clans and the Peasants: reflections on social structure and change in Hellenistic central Italy', in eds. van Dommelen, P. and Terrenato, N., *Articulating Local Cultures: power and identity under the expanding Roman Republic* (Portsmouth, Rhode Island, 2007), 16-21

they are not an extended *familia* since there is no *pater* in a *gens*. It seems possible that in archaic central Italy, two ways of organising military forces co-existed: one around aristocratic warlords and one around city organisation. Although it is commonly assumed that these methods of organizing an army were not contemporary and the evidence from central Italy would seem to point to the war-band being a more archaic form of military organisation there seems little reason why such military bands could not be a latent social and military organization even once a civic tribal system was in place. The example of the Fabii might suggest that such war-bands could co-exist, to some extent, with city (tribally organised) armies.

Such a dual organisation would reflect the power of certain aristocratic *gentes* in the early Republican period, for which we find evidence both in the dominance exercised by the Fabii over the consular lists and in the late regal and early Republican evidence for warlords who could extend their influence over a number of cities and territories.¹³⁹ Aristocratic warlords, accompanied by armed followers – called *clientes* (clients) or *sodales* (companions) –, were important figures of the societies of archaic central Italy.¹⁴⁰ There are cases of these warlords also among the Romans: the *Lapis Satricanus*, an inscription dated around 500 from Satricum, is dedicated to Mamars by the *sodales* of Popilius Valesios. Mamars is an archaic form of Mars and that Popilius Valesios is the archaic form of Puplius Valerius, possibly Publicola, one of the founders of the Republic.¹⁴¹ It is interesting that these men identified themselves not as citizens, but as companions (retainers) of a single leader. Many of the conflicts occurred between the Romans and their neighbors, especially in the regal era, were probably mainly raids and reprisals, and one can imagine an uneasy co-existence of private and state warfare.

The case of the Fabii could therefore have a kernel of truth, though undoubtedly Roman tradition transformed the story into a sort of epic. Rome and Veii, at the time, were associated with numerous wars and the episode of the Cremera would appear to be a battle in a sequence of legends and stories and possible historical events. Diodorus 11.5.3 clearly found the legend difficult to incorporate into his understanding of early Roman history and rationalized the event as a regular battle (fought between civic armies), in which the Fabii, for some reason, suffered heavy losses, though such a conclusion would in itself presuppose that the *gentes* formed a distinctive element of the army. The episode of the Fabii may,

¹³⁹ See Nicola Terrenato, 'The Versatile Clans: archaic Rome and the nature of early city-states in Central Italy', in eds. Terrenato, N. and Haggis, D., C., *State Formation in Italy and Greece* (Oxford, 2011), 241-243

¹⁴⁰ Howard Scullard, *The Etruscan Cities and Rome* (London, 1967), fig.100, 222

¹⁴¹ Rich, 'Warfare and the Army', 15

therefore, represent a memory or myth of how warfare had been conducted, even though at the time of its historical setting it was already an archaism.¹⁴²

We thus have two poorly attested possible organizational structures for the early Roman army, one associated with *gentes* and the other with the three tribes. The traditions of early Roman history provide evidence for a third system developing within the late regal period with the reforms of Servius Tullius. This monarch was, of course, associated with many of the civic reforms and traditions of the early Roman state and it is thus natural that the establishing of a civic army would be attracted to his reign. The so-called ‘Servian constitution’ introduced the census as a means to order the population on the basis of wealth and had a strong military character: the class division determined the recruitment system and what kind of military equipment a citizen would provide in time of war.

In military terms, the Servian reforms would appear to have corresponded with the adoption of hoplite warfare by the Romans. The connection between the introduction of timocratic divisions and citizen registration is familiar from the early *poleis* of Greece. Rich suggests that the characteristic hoplite panoply, and, as consequence, the close formation fighting style (phalanx) were imported to Central Italy from Greece by the Etruscans.¹⁴³ It is not clear when it spread among the Romans, but, by looking at Diodorus, we might suggest that the Romans adopted this type of warfare from the Etruscans in order to fight them on equal terms.¹⁴⁴ Therefore, it is plausible that hoplite warfare in Latium was introduced around the same time or soon after its introduction in Etruria.

In the 1930s, Fraccaro observed that the structure of the legion corresponded to that of the centuriate assembly and focusing on Livy’s and Dionysius’ description of the census, he postulated a recruitment model for the Servian period.¹⁴⁵ In Fraccaro’s view, the legion was formed by sixty centuries of heavy infantry of *iuniores* raised from the first three classes (class I: 40 centuries, class II: 10 centuries, class III: 10 centuries), and twenty five centuries of light-armed infantrymen raised from the two last classes of citizens (10 centuries from class IV and 15 from class V). The Roman legion as described by Fraccaro was thus composed by 3,000 heavy-armed infantrymen supported by 1,200 light-armed troops called

¹⁴² Christopher Smith, *The Roman Clan*, 291-295 on the episode of the Fabii.

¹⁴³ Rich, ‘Warfare and the Army’, 17

¹⁴⁴ Rich, ‘Warfare and the Army’, 17; Diodorus XXIII, 2: “The Etruscans, who fought with round shields of bronze and in a phalanx formation, compelled the Romans to adopt similar arms...”

¹⁴⁵ Plinio Fraccaro, ‘Ancora sull’Età dell’Ordinamento Centuriato’, in *Athenaeum* 12 (1934), 57-58

velites for a total of 4,200 men – the normal force of a legion according to Polybius.¹⁴⁶ Additionally, the Roman army of the Republic was always formed by more than one legion: the two legions of 4,200 men described by Polybius would seem to be (according to Fraccaro) the result of the division of a single legion of 6,000 men and 2,400 *velites* into two halves when the Romans started to elect two consuls instead of a king.

Yet, although it seems possible that the Servian centuriate assembly, as a division of men of military age into units that was reproduced in the structure of the army, was introduced during the monarchy and before the creation of the consulate, as already discussed in the previous chapter, the reform associated with Servius Tullius was probably much simpler than that reported by Livy or Dionysius. The Livian/Dionysian version of the Servian constitution was probably a reflection of a later adaptation of an earlier ‘Servian’ system, as I shall argue below.¹⁴⁷ Instead of five different classes, the only distinction in the early Republican – and late monarchic – army was probably merely between those who could enroll as heavy-armed hoplites, the core of the army, and those who could enroll only as *velites*. Of course, the association of this early system with Servius Tullius remains a matter of conjecture as does the historicity of any such person.

This primitive bipartite organisation is described by Aulus Gellius seems a more plausible model for the relatively simple structures of the Roman society in the sixth and early fifth centuries:

“The so-called *classici* were not all the men in the five classes, but only those of the first class, who were assessed at 125,000 *asses* or more. The term *infra classem*, on the other hand, was applied to those of the second class and the rest of the classes, who were assessed at less than the amount stated.”¹⁴⁸

Classici would seem to refer only to those who were members of the first class who could afford the hoplite panoply and who would thus be those “called upon” – *classici* could derive from *calare*: to call or summon –, while the *infra classem* were those “below the class” who could not afford the complete hoplite equipment.

¹⁴⁶ Polybius, VI. 20

¹⁴⁷ Livy, I. 42-43 and Dionysius, IV. 16-18

¹⁴⁸ Gellius, *Attic Nights*, VI. 13

Further, Gellius tells us that the Twelve Tables of c. 450 maintained a division of Roman society into two classes called *adsidui* and *proletarii*.¹⁴⁹

“For an assiduus an assiduus is to be guarantor. For a proletarian citizen whoever wishes is to be guarantor.”¹⁵⁰

Cicero suggests that these terms were instituted by Servius, though it is not clear on what grounds he believed this.¹⁵¹ It seems possible that the distinction between *classici* and *infra classem* and between *adsidui* and *proletarii* was the same. Cornell, however, denies this since, in his view, *classis* and *infra classem* were two different levels of the *adsidui*.¹⁵² The *infra classem*, after all, could contribute to the military effort by being recruited as light armed infantry while the *proletarii*, on the other hand, were completely excluded from military service.

The origin of the name *adsiduus*, although identified as “permanent settler”, by Gellius and Cicero is also connected with the word *as* – the currency –, also mentioned in the Twelve Tables – see previous chapter –, and with their capacity to give money or pay taxes.¹⁵³ Cicero says that the word comes from “*as* (a coin)” and “*do* (I give)”. The *proletarii* were citizens with little or no property and both Cicero and Gellius said that the etymology is *proles*, offspring/children: when the value of the property of a citizen was inferior to the minimum census requirement, the only possible contribution to the state for him was producing offspring, the country’s next generation.¹⁵⁴ Cornell suggests that, at the time of the Twelve Tables, the *proletarii* were few in number while the plebs were concentrated in the ranks of the *infra classem*.¹⁵⁵

The divisions of citizens between *classici* and *infra classem* and between *adsidui* and *proletarii*, even though different, are evidence for a two class system: those who were eligible for military service and

¹⁴⁹ Gellius, XVI. 10; on the Twelve Tables see Michael Crawford (ed.), ‘Roman Statutes’ vol. II, in *BICS* supplement 64 (1996), 556-557

¹⁵⁰ Table I.4; also see Crawford, ‘Roman Statutes’, 589-590

¹⁵¹ Cicero, *Rep.*, II. 40

¹⁵² Cornell, *The Beginnings of Rome*, 289

¹⁵³ Gellius, XVI. 10, Cicero, *Rep.*, II. 40

¹⁵⁴ See Gary Forsythe, *A Critical History of Early Rome* (Berkeley and Los Angeles, 2005), 217

¹⁵⁵ Cornell, *The Beginnings of Rome*, 289

those who were not. The *classici* furnished the heavy-armed infantry centuries, while the *infra classem* the light-armed troops. The aristocrats, finally, provided the cavalry.

As said before, the early Roman army may originally have been formed by 3,000 men recruited among the Romulean tribes, and, by looking at Fraccaro's model, by the introduction of the Republic it counted a total of 8,400 men that was then divided into two legions of 4,200 men each (3,000 heavy infantry plus 1,200 light-armed *velites*) due to the presence of the two consuls instead of one king. This model of military organisation might actually reflect the situation around the second half of the fourth century, while it is difficult to accept it for the late sixth/early fifth centuries.

We can postulate that the army of the early Republican period was still composed by a single legion of 3,000 *classici* armed as hoplites, but that it gradually grew during the fifth century until, at the time of the war against Veii (406-396), it reached 6,000 men. After this point, but no later than 362, a second legion was permanently introduced.

Sumner suggests that the increase in the manpower of the army is connected with the role of the *tribuni militum* and the progressive increase in their numbers during the fifth century, as it reflects the growth of men in the army.¹⁵⁶ A *tribunus*, as suggested by Varro, was originally the commander of 1,000 men because the etymology of the word *milites* – soldier – comes from the original tribal legion that was composed by three *milia* (thousand) men: one *milia* of *milites* from each individual tribe.¹⁵⁷ Aspects of the military role of the *tribuni* is explained by Polybius who says that the selection of the men during the annual levy was still done by them (and we should consider that Polybius was writing much later than the fifth century).¹⁵⁸

When first mentioned by Livy in 444, the number of *tribuni* elected was three, thus suggesting that the army still counted 3,000 men.¹⁵⁹ This practice continued until Livy reports that in 425 a fourth *tribunus* was elected, suggesting that the legion was increased to 4,000 men.¹⁶⁰ The number of *tribuni* did not

¹⁵⁶ Graham Sumner, 'The Legion and the Centuriate Organization', in *JRS* 40 (1970), 72

¹⁵⁷ Varro, *LL.*, V. 89

¹⁵⁸ See Polybius, VI. 19-20

¹⁵⁹ However, Sumner, 'The Legion', 78 suggests that the hoplite legion was already composed of 4,000 men by the time of the battle of Mount Algidus (458, see Livy, III. 28) because the *Comitia Centuriata* was adjusted so that the *iuniores* of the *classis* were divided into 40 centuries.

¹⁶⁰ See Livy, IV. 6 on the election of the three *tribuni*, and Livy, IV. 35 on the election of four *tribuni*.

change until 405, when six were elected – and it remained the practice until 367 –, so that, by the time of the war against Veii, the Roman army was furtherly increased to 6,000 men.¹⁶¹

Regarding the number of legions in service during this period, while Fraccaro argues that the introduction of the Republic brought the division of the army between the two consuls – so the legion was divided into two – it seems from our sources that it is difficult to accept a second legion so early. As said before, its introduction should not postpone the events of 362 – war against the Hernici –, but we have sporadic signs of a second legion in service before these events: Livy mention the possibility of a second legion in 378 during conflict against the Volsci, but it's not very clear; also, there is a plausible presence of a second legion during the campaign of 465.¹⁶² We might suggest that Rome was able to form a second legion when necessary by the mid-fifth century although the common practice was still the recruitment of one legion. During the first half of the fourth century (before 362), the recruitment of two legions progressively became the norm.

Yet, even if the pressures on the Roman military were rising steadily through the fifth century, it seems clear that what changed the military requirements of Rome was the war against Veii of 406. Because of the high demands of this conflict, the number of tribunes and hoplites was further increased and, for this reason, it is attractive to date a change in the census to create further classes and boost recruitment to that war.¹⁶³ I would thus suggest that it was only during the Veietine War that the *infra classem* were divided into four groups according to wealth: the *classici*, now called class I, and the newly formed classes II and III. This reform saw an increase from forty to sixty centuries since classes II and III added twenty centuries to the original forty supplied by class I. We can see that this is actually the “Servian” organisation described by Livy and Dionysius.

Since Livy says that, in the year following the conquest of Veii, six tribunes were elected again, it is likely that the army maintained a structure of 6,000 men.¹⁶⁴ A reform of Rome's political organization was made necessary and possible by the progressive expansion of the city and, although an accurate

¹⁶¹ Livy, IV. 61 on the election of six *tribuni*; before that we have several suggestions that their number was kept at four after 425: see Livy, IV. 44 (420); IV. 49 (415) and IV. 57 (407). In 366 there is no mention of the tribune anymore (see Livy, VII. 1) while Livy, VI. 42 still mentions them in 367.

¹⁶² See Livy, VII. 7 on the war of 362 against the Hernici; Livy, VI. 31 on the plausible second legion formed in 378; Livy, III. 2 on the events of 465: “Two consular armies thus bore down upon the enemy in battle array...”

¹⁶³ Livy, IV. 61: right after the beginning of the war.

¹⁶⁴ Livy, V. 24; he also says that six tribunes were elected in 390, on the verge of the Gallic invasion.

dating of this reform is impossible, it tempting to associate the introduction of the ‘new Servian’ system and the subsequent increase in troop numbers with the military pressures at the end of the fifth century and the cluster of other reforms, such as the introduction of pay in 406 (see previous chapter).¹⁶⁵ This last reform in particular would appear to reflect a decision to enlarge the recruitment pool to include less wealthy groups in Roman society since the increased scale, range and complexity of warfare imposed new requirements in terms of manpower and provisioning.

If this reconstruction is correct, there was a further stage in the development of the recruitment system when soldiers were recruited from all five classes according to their age, not economic status. At this point, military service came to be identified with citizenship with virtually all male citizens being required to serve. As with much else in early Roman history, establishing a date and context for this reform is difficult. One could associate the reform with developments c. 406 (in which case one would have to modify the above reconstruction), but it is perhaps better to relate recruitment from all five classes to a change in military arrangements that came with the adoption of the manipular army.

This step saw the abandonment of the hoplite tactics in favor of a looser formation called maniples (from *manipuli*, handfuls), small units capable of more independent action. Livy gives us a description of this change:

“The Romans had formerly used round shields; then, after they began to serve for pay, they changed from round to oblong shields; and their previous formation in phalanxes, like the Macedonian army, became a battle line formed by maniples...”¹⁶⁶

This passage is placed about 340 at the time of the Romano-Latin War (341-338), but, like all previous military reforms, it is difficult to date exactly the conversion from the phalanx to the maniples. Livy suggests that the new formation was adopted after the introduction of payment, while Diodorus says that the Romans imitated the Samnites who fought in maniples before them, so dated the introduction of the maniple formation at the time of the Samnite Wars.¹⁶⁷

¹⁶⁵ Livy, I. 30 says that the number of citizens doubled after the conquest of Alba Longa and this fact could be considered the first serious increase in Rome’s military manpower.

¹⁶⁶ Livy, VIII. 8

¹⁶⁷ Diodorus, XXIII. 2 calls the Romans: “Pupil who always outstripped their masters”.

It seems possible that what triggered the transformation from the hoplite legion to the manipular one was the Gallic invasion of 390 and the disaster of the river Allia, a turning point for the early Roman army. It is possible that this humiliating defeat pushed the Romans to adopt a new formation for their army. We can thus date the introduction of the manipular reform of the army in a period from 390 to 360s, the same period when, as we have suggested, the second legion was introduced. Surely, this reform of the army had to take place before the Romano-Latin War of the mid-fourth century, since, as mentioned by Livy, maniples were already the standard units of the army on both sides.¹⁶⁸

The change of military units and formation, however, was not the only alteration which brought about the manipular legion: strictly connected with this transformation is a development in military equipment and recruitment system. Both Livy and Diodorus marked the passage from phalanx to maniples with a shift in equipment from round shield to oblong, but, more notably, with the introduction of the *pilum* (javelin) in place of the thrusting lance (*hasta*) – although the last was still used by the *triarii*.¹⁶⁹

Although Keppie suggests that the *pilum* was not introduced at the time of the First Samnite War – due to the fact that Livy cited the *pilum* in action for the first time only during the battle of Aquilonia (293) – an anecdote related by Plutarch, dated to 367, suggests that Camillus ordered the soldiers to use their “heavy javelins” as thrusting spears to ward off the Gallic attack.¹⁷⁰ Though this may, of course, be an interpolation into the historical account, the anecdotal nature of the reference at least allows the possibility that this was something ‘remembered’ about Camillus.¹⁷¹

The evidence would seem to suggest the development of a manipular legion during the early fourth centuries and from this point onwards, recruitment would appear to draw on all five classes of Roman men since it was not anymore a division between those who could afford the equipment and those who could not. I believe it also marked the passage to a citizens’ army. From then on, soldiers of the legions

¹⁶⁸ Livy, VIII. 8 states that not only the Romans, but the Latins as well fought in maniples: “They knew that not only must section meet section in battle, the whole line of *hastati* face *hastai*, *principes* face *principes*...”

¹⁶⁹ On the passage from phalanx to maniples see Livy, VIII. 8 and Diodorus, XXIII. 2. Polybius, VI. 23, while describing the equipment of the different units of the legions says that the *triarii* were armed with a thrusting spear – *hasta* – rather than the *pilum*.

¹⁷⁰ Keppie, *The Making of the Roman Army*, 20; on the battle of Aquilonia, see Livy, X. 39. Plutarch, *Camillus*, 40. 4 mentions the episode the involved the *pilum*.

¹⁷¹ As suggested by Bishop and Coulston in *Roman Military Equipment* (London, 1993), 50

were recruited *ex classibus* – as suggested by Sallust¹⁷² –, from all five classes, and all citizens who possessed the minimum property qualification for membership of the fifth class. With the introduction of the new units of *hastati* (*hasta*-users), *principes* (the foremost, perhaps in the sense of being the best fighters) and *triarii* (the third liners), distinctions in equipment and tactical function were based on age – citizens were now divided between *iuniores* and *seniores* –, not by economic status, although there was the exception of the *velites*, described by Polybius as the youngest and poorest citizens.¹⁷³

The introduction of the manipular legion ended the military role of the *comitia centuriata*, which continued to exist, but lost its military and tactical function since the army was not its armed version anymore as in the past. However, Polybius says that when Roman citizens were recruited, they were still divided into tribes, then four groups of military tribunes – because at the time of Polybius’ passage the army was already formed by four legions¹⁷⁴ – who progressively chose the men to recruit.¹⁷⁵ I believe that this process was purely traditional: tribes and centuries had lost their military function.

If this reconstruction is correct, it is possible to date the manipular reform of the Roman army in a period between 390 – after the Gallic invasion – and 360s since, as we noted, that maniples were already the standard units of the legions at the time of the Latin War (340-338).¹⁷⁶

I would, however, suggest that the manipular army came into being towards the beginning of this period and that it was the deployment of this army that led to the rapid expansion of Rome after the debacle of the Allia, through a series of successful military campaigns in Etruria, against the Aequi and the Volsci.¹⁷⁷ These victories were usually followed by the foundation of colonies, an event probably reliably recorded in the annalistic sources. This fact is one of Cornell’s main arguments against historians who believe that victories of the early fourth century onwards were later interpolations into the tradition or, at the very least, exaggerated.¹⁷⁸ Furthermore, the foundation of colonies from the early fourth century may also be further and positive evidence for a change in the nature of the army (and not just evidence of military

¹⁷² Sallust, *Bellum Jugurthine*, 86. 2

¹⁷³ Polybius, VI. 21

¹⁷⁴ Although Fraccaro suggests that the four legions were introduced in 311 at the time of the Samnites Wars, Livy, VII. 23 already mentioned them in 350.

¹⁷⁵ Polybius, VI. 20

¹⁷⁶ Livy, VIII. 8

¹⁷⁷ Livy, VI. 4 says that Camillus returned to Rome in triumph for his victories in three wars against Etruscan, Aequi and Volsci.

¹⁷⁸ Cornell, *The Beginnings of Rome*, 319

success): the program of colonization would appear to represent a reward for service for the poorer elements in Roman society. In itself, the development of a program of colonization would seem to suggest that the poor had a certain political authority and it would be convenient to associate that political authority with military service. Coincidentally or not, the colonial settlements provided Rome with the institutional capability to control extended territories as the changes in military service appear to have established a political need for new territories.

To conclude this section, we can summarise the evolution of the Roman army and its recruitment system, strictly connected with changes in society:

- From the eighth century and the sixth century, we have a description of a tribal army, a reflection of Rome's tribal society. This changed when the reforms attributed to Servius Tullius introduced the census and deeply changed Roman society and thus the army.
- The primitive bi-partite pre-Servian constitution marked the adoption of the hoplite warfare by the Romans and the creation of an aristocratic army: citizens were divided between those who could afford the hoplite panoply and those who could not.
- At the end of the fifth century and the beginning of the fourth, however, because of the requirements of the war against Veii, the army went through important changes: the enlargement of the recruitment pool, which caused an expansion of the census classes, and the introduction of military payment.
- During the first half of the fourth century, in a period after the Gallic invasion of 390 and before the Latin War of 340, both the army and the society were transformed: the hoplite legion was abandoned for the manipular legion and the citizens were recruited mainly by age – property qualification was still present, but less important than before. This marked a passage from the aristocratic army of the late monarchy and early Republic to a citizens' army that will last until the reforms of Gaius Marius of the late second century.

* Manpower and Recruitment

In this next section, I will focus on the evidence for the numbers of troops. The first step, however, is to examine the matter of the census figures, starting from their procedures, and then looking at who was included.

When a census was held, all adult men of citizen status had to be registered by representatives of the government.¹⁷⁹ Different sources (including the *Tabula Heracleensis*) mention that the citizen had to make a *professio*, an official declaration.¹⁸⁰ In this report the citizens stated under oath “their gentile names, their praenomina, their fathers or patrons, their tribes, their cognomina, their age, and a statement of their property...”¹⁸¹ The census was then followed by the rite of the *lustrum*, a purification ritual with deep religious connotations, since it symbolized a rebirth of the city.

It is generally accepted, following Beloch and Brunt, that all adult male Roman citizens (both *assidui* and *proletarii*) were included in the census. Based on the fact that Rome counted its citizens for military recruitment, collection of taxes, and recognition of voting rights, Saskia Hin suggests: “...there must have been several lists derived from the census. No total figure could fulfill the threefold purpose of the census, for the obvious reason that these diverse functions did not coincide.”¹⁸²

While a plausible suggestion, no report provides us with these three different numbers for the census figures, nor is there ever any clarification as to which of the three numbers is reported. The most plausible solution is that the reported census figures represent the total male citizen population as registered by the censors and if other numbers were reported by class or by military availability, these are not recorded. It is plausible that further sub-divisions of the citizens (in terms of age and property – determined by the *professiones* – for recruitment and taxation reasons) took place for administrative purposes.

¹⁷⁹ De Ligt, *Peasants, Citizens and Soldiers*, 84 suggests that Republican census were probably focused on all adult male citizens rather than citizens sui iuris only: “...it seems likely that the Roman authorities would have been more interested in a figure that revealed Rome’s military strength.”

¹⁸⁰ On the *professio* see Cicero, *De Legibus*, III. 3. 7; Dionysius, IV. 15; Claude Nicolet, *The World of the Citizen in Republican Rome* (London, 1980), 61 suggests that the *Tabula Heracleensis* is a quite late source.

¹⁸¹ *CIL*, I2 593, 1.142; also see Nicolet, *Citizen in Republican Rome*, 62

¹⁸² Saskia Hin, ‘Counting Romans’, in eds. De Ligt, L. and Northwood, S., *People, Land and Politics*, 214

Our main problem is establishing the ratio between *assidui* and *proletarii*, a challenging – probably unsolvable – matter due to the lack of data. Estimates range from *proletarii* being 50% of the citizen population to *assidui* being up to 90%.¹⁸³ We have only the thinnest grounds for making such an estimate, but given the low level of the census requirement – as suggested by both Rathbone and De Ligt - already at the outbreak of the Second Punic War membership of the fifth class, and thus eligibility for service in the legion, was guaranteed by the possession of relatively small land allotments¹⁸⁴ – it seems to me preferable to opt for a high percentage of *assidui* in the census population, perhaps as high as the 90% suggested by Rosenstein.¹⁸⁵ Also, we have to consider the fact that during the mid-second century, as we will see, the minimum census limit for membership in the fifth class – and thus for service in the legions – was furtherly reduced. As a result, we have to consider the simple, yet likely fact that it would have been hard for citizens who owned less than this already very low minimum census requirement to survive.

Overall, it is improbable that the *capite censi* were a high proportion of the total registered population. It also seems intuitive that under-registration rates – that we will examine later – would increase in the poorer citizen groups.¹⁸⁶ Consequently, it seems unlikely that using the census population as our guide seriously under-represents the pressures that fell on Rome’s population of *assidui*. For this reason, when in the course of this dissertation we will try to estimate the military participation rates, and thus the burden of military service on the Roman population, we will use the census figures offered to us by the sources.

Another aspect that we have to consider regarding the census figures are the freedmen. Keith Bradley highlights the fact that the presence of “freedman Roman citizen” was already mentioned by the Twelve Tables: “...it reveals that the capacity both for a slave to be set free and to become part of the citizen community had been created at an early date.”¹⁸⁷ Suggesting that both the presence of freedmen and their inclusion in the citizen body have always been part of Roman society since the early Republic. Thus, once enfranchised, former slaves could become citizens and be included in the census. The real difficulty,

¹⁸³ Brunt, *Italian Manpower*, 64-66; Nathan Rosenstein, ‘Marriage and manpower in the Hannibalic War: *assidui*, *proletarii* and Livy 24.18.7-8’, in *Historia* 51 (2002); Luuk De Ligt, ‘Roman Manpower resources and the proletarianization of the Roman army in the second century BC’, in eds. Lo Cascio, E. and De Blois, L., *The Impact of the Roman Army (200 BC – AD 476)*, 18

¹⁸⁴ Dominic Rathbone, ‘*Assidui* and *Prima Classis*’, 145; De Ligt, *Peasants, Citizens and Soldiers*, 102

¹⁸⁵ Rosenstein, ‘Marriage and Manpower’, 171

¹⁸⁶ See De Ligt, *Peasants, Citizens and Soldiers*, 98

¹⁸⁷ Keith Bradley, *Slavery and Society at Rome* (Cambridge, 1994), 17

however, is trying to estimate the proportion of freed slaves (especially if we consider that we don't know how many slaves there were in the first place), and their annual impact on the census figures.

Frank guesses that, between 81 and 49, around 500,000 slaves were manumitted, so about 16,000 per year, but also adds: "A large part of these would, of course, have been old – especially after the dole was increased in 63 – and the death rate of these *liberti* would accordingly be very high."¹⁸⁸ Nicolet, on the other hand, gives great importance to manumission: "...slavery was perhaps a more transitory condition than we tend to think, and the grant of freedom a normal expectation for a high proportion of slaves, maybe up to a third."¹⁸⁹ His suggestion is that a significant part of the population of Italy and Rome itself was composed by freedmen: perhaps 200,000 out of the 600,000 – 800,000 people in Rome in the period 58-45 were freedmen, meaning a few more than 15,000 every year. More recently, Scheidel has argued in favour of an overall low manumission rate mainly focused in Rome and other urban centres, while lower in the countryside.¹⁹⁰

The data that we have been analysing is focused on the late Republican and early Imperial period; such information, however, might help us trying to estimate on manumissions and the number of freedmen during the mid-Republic.

First of all, we have to consider the fact that slavery, although always present, was not as widespread as during the late first century: "All we can claim with reasonable confidence is that slaves were more numerous at the end of the Republican period than at the beginning."¹⁹¹ Additionally, we have to take into account Scheidel's suggestion that cities had a higher rate of manumission in comparison with the countryside, but also the fact that, by the early second century, cities were smaller than during the late Republic. Then we have to add Frank's position on slaves' age and life expectancy after manumission

¹⁸⁸ Tenney Frank, *An Economic Survey of Ancient Rome* (Baltimore, 1933), 384

¹⁸⁹ Claude Nicolet, 'Economy and Society 133-43 BC', in eds. Crook, J. A., Lintott, A., Rawson, E., *The Cambridge Ancient History volume IX* (Cambridge, 1994), 605

¹⁹⁰ Walter Scheidel, 'The Demography of Roman Slavery and Manumission', in eds. Bellancourt-Valdher, M., and Corvisier, J. N., *La Demographie Historique Antique* (Artois, 1999), 110: "...we know that scenarios of self-sustained growth do not apply to Roman Italy. On the contrary, we have reason to suppose that as in number of more recent slave societies, the slave population of Italy could not fully reproduce itself, and that imports therefore did not only contribute to net increase but also served to maintain the existing servile population. [...] Even a relatively low rate of manumission can render a biologically reproducing slave population socially non-reproductive. This is likely to have been the case in Rome." and especially 114: "...in the Roman Empire overall, manumission must have been confined to a minority of all slaves. If the rate of manumission was high in some areas, for example in the city of Rome or in wealthy urban households in general, it must have been quite low in other environments, above all in the countryside."

¹⁹¹ Scheidel, 'Roman Slavery and Manumission', 108

combined with Brunt's suggestion that female slaves were freed at advanced age, so they had few children.¹⁹² Finally, due to the fact that we are looking at the census figures, and these counted Roman citizens only, we have to consider slaves located in Roman territory proper (so most of Central Italy), and not in the rest of Italy.

We can thus speculate that, by the beginning of the second century, between 4,000 and 6,000 slaves were freed per year. This rate most likely grew during the second century due to the increase in the number of slaves, but it probably followed the same pattern with a more numerous and generally younger population of former urban slaves and less numerous and older countryside freedmen.

It is possible to argue that freedmen, once they joined the citizen community, shared a similar connection to military service as the *proletarii* as both classes were normally not admitted in the legions. While it seems that *proletarii* could be enlisted for service in the fleet, we may argue that freedmen, although there is no mention of them in Polybius' passage, were accepted as crewmembers as well.¹⁹³

It is possible that, when necessary, *proletarii* were accepted for service in the legions, and freedmen as well could have been recruited in case of emergency (as a reserve manpower). We could look at the case of the *volones* during the Second Punic War: in this instance slaves – not even freed – were assembled into two legions and sent against the Carthaginians. Nevertheless, later, even after the disaster of Arausio (105), we have no mention of mass recruitment of freedmen.

We can thus conclude this section by saying that freedmen were most likely included in the census figures, but their impact was probably quite limited due to the fact that they were not very numerous.

Having a better idea on how the census worked, and how was counted, we can look at Rome's population from the time of Servius Tullius onwards. The figures are given in the following table:

DATE/PERIOD	CENSUS	SOURCE
Servius Tullius	80,000	Livy, I. 44
508	130,000	Dionysius, V. 20
498	150,000	Dionysius, V. 75

¹⁹² Brunt, *Italian Manpower*, 143-146

¹⁹³ On *proletarii* in the fleet see Polybius, VI. 19 and Brunt, *Italian Manpower*, 22-23

493	110,000	Dionysius, VI. 96
474	103,000	Dionysius, IX. 36
465	105,000	Livy, III. 3
458	117,000	Livy, III. 24
393	152,500	Pliny, <i>NH</i> , XXXIII. 16
340	166,000	Euseb. <i>Ol</i> , 110.1
323	250,000	Livy, IX. 19

The credibility of these numbers depends on the probable territory and population density of early Rome. According to Beloch's estimate, the Roman state around 500 had an extension of 822 km² – which corresponded to 35% of Latium – with a population of 50,000 people, of which 10,000 of these lived inside the city while the rest were in the countryside suggesting a population density of 50 people per km².¹⁹⁴ It is possible, however, that Roman territory, at the end of the fifth century, was considerably smaller: Livy comments that Veii had a territory larger than that of Rome, and it was the conquest of Veii (396) that represents Rome's first major expansion.¹⁹⁵ According to Alföldi, Roman territory in the fifth century occupied an area of roughly 250 square kilometers on the right bank of the Tiber.¹⁹⁶

If we were to take the census figure of 150,000 as possible, we would be looking at a total population (allowing for women and children) of 525,000 and population densities of 2100 per km² on 250 km² or half that on 500 km². Given the modern population density for Italy is 201 persons per km², the figures do not appear plausible. Robert Witcher, in his *Regional field surveys and the demography of Roman Italy*, suggests population densities in the environs of Rome of 41 persons/km² to 106 persons/km².¹⁹⁷ At the very upper end of that spectrum for densities and area of land, we would have a rural population of 53,000 to which we must add an urban population for which we have no viable estimate. The earliest census figures would seem to make no sense.

It seems very unlikely that we can place much trust in the figures for the early census: Livy's account of 80,000 citizens during Servius Tullius' reign, for example, is clearly not in any historical way true.¹⁹⁸ Census figures, after all, are particularly susceptible to corruption and we cannot be sure that the correct

¹⁹⁴ Karl Julius Beloch, *Römische Geschichte bis zum Beginn der punischen Kriege* (Berlin, 1926), 217

¹⁹⁵ Livy, V. 24: "The latter's (Veii) territory was more extensive than that of Rome."

¹⁹⁶ Andreas Alföldi, *Early Rome and the Latins*, 303; he describes Roman's territory as: "Very modest, but it can stupefy only the believers in a huge Rome under the Tarquins."

¹⁹⁷ Robert Witcher, 'Regional Field Survey and the Demography of Roman Italy', in eds. De Ligt, L. and Northwood, S., *People, Land and Politics* (Leiden/Boston, 2008), 273-303

¹⁹⁸ On the possibility of defending this early census figures, see Coarelli, 'Demografia e Territorio', 318-319 and 322-323

figures are transmitted. We might posit a pontifical recording of the census figures and the transmission of those figures into the annalistic tradition, but the evidence for such a recording and transmission is slight. Further, we may wonder whether a census of all Roman citizens before the introduction of the manipular army would make much sense and whether any early census would be remotely accurate.

Brunt takes the minimalist position that: “It... seems best to accept the census figures from 225 – and perhaps from a little earlier – as based on good authority and dependable in principle...”,¹⁹⁹ dismissing all early figures. Saskia Hin, on the other hand, suggests more exhaustive analysis on these early figures.²⁰⁰ Yet, even if we can place no trust in the fifth and fourth century figures, we might be able to take the early third-century figures more seriously.

We might be able to triangulate our evidence for population size against the date we have army size. Dionysius, in a passage dated almost at the same time of the battle of the Cremera (475), says that those who were qualified for military service, were 1/3 of the total male population.²⁰¹ If we take this figure seriously then the census figures from the fourth century (Pliny suggests a total population of 150,000 in 393, and Livy of 250,000 in 319) suggest that the proportion of men recruited for military service was quite small: our sources for this period suggest armies from 6,000 to the 18,000 men suggested by Polybius.²⁰² Taking the fourth-century census figures seriously, we might suggest rates of recruitment between 4% and 7.2% of Rome’s manpower, far below the 1/3 suggested by Dionysius.

We could, however, also work backwards from Dionysius’ figure. In this presumption, we would assume that an army of 6,000 would be recruited from a pool of about 18,000 men and a total citizen body of about 60,000. Similarly, an army of 18,000 would be derived from a total 54,000 eligible men and a total population of about 180,000. This figure is clearly just a rule of thumb employed by Dionysius. Nevertheless, we can set these figures in the context of the evidence for pressure being placed on Rome’s

¹⁹⁹ Peter Brunt, *Italian Manpower*, 33

²⁰⁰ Hin, ‘Counting Romans’, 206

²⁰¹ If this were true, the census figures at the beginning of the fifth century (498) suggesting a male population of 150,000 (Dionysius, V. 75) would mean that Rome had a population of at least 50,000 male citizens eligible for military service. This would suggest that the Romans would actually have been able to raise armies of 30,000 men or even larger in the fifth century. Unsurprisingly, our evidence points to much smaller numbers. We have two possible conclusions: i) The census figures (which seem implausible in the extreme on other evidence) are wrong; ii) The Romans actually recruited much smaller proportions of the population that Dionysius suggests.

²⁰² On the census figure of 393 see Pliny, *NH*, XXXIII. 16; Livy, IX. 19 for the census figure of 319. On the strength of the Roman army during this period see Polybius, VI. 20

military resources in the fourth century by the various conflicts. It was these demands that led to Rome establishing new systems of military recruitment that enabled the less wealthy in Roman society to serve. Such reforms would seem unlikely in the context of total recruitment being substantially under 8% of the male population, even if recruitment was from a limited sector of Roman society. We have, thus, a reasonably straightforward choice between accepting low recruitment rates as measured against total population and the high fourth-century census figures, or a much lower population and comparatively high mobilization rates.

Although there is considerable margin for error, one would favour population estimates for Rome in the late fifth and early fourth century far closer to a total of 180,000 than Pliny's 150,000 males and c. 495,000 total population. This first figure would still be a population three times larger than our highest feasible estimate for the population of Rome and its territories in 500 BC. The period of conquest in the fourth century would see a very rapid expansion in Roman territory and increase in Rome's population.

The data are imperfect and the statistics cannot be trusted. We are thrown back on plausible estimates and imaginative reconstructions from the annalistic tradition. I suggest that the pattern of reforms that we see in the late fifth century, perhaps continued into the fourth, would fit better a model of a highly militaristic and expansionist state, and a state which sought to maximize its potential for military deployment.

* The recruitment system of the third century Roman Republic

Our key source for the third century army is Polybius. He describes the process of recruitment in a key passage which we can attribute to the second half of the third century – if we accept Polybius' claim that he was writing a history that reflected the conditions of the Mediterranean world in that period.²⁰³

“On the appointed day, when those who are liable for service have arrived in Rome and assemble on the Capitoline Hill, the fourteen junior military tribunes divided themselves into four groups [...]; this is because of the original division of the Roman forces is into four legions. [...] After they have selected the total number required, that is, when the strength of each legion had

²⁰³ Polybius, VI. 19

been brought up to 4,200, or in time of especial danger 5,000, it was the custom in the earlier time to choose the cavalrymen; but in our day these are enrolled first of all. The censor selects them on a property basis, and 300 are posted to each legion...

When the enrollment has been carried out in this fashion, the tribunes who have been assigned to this duty then parade the conscripts, and each of them selects from the whole body one man whom they consider the most suitable [...]. Then the rest of the conscripts come forward [...]"

Each year the *dilectus*, the choosing or levy, was held on the Capitol in Rome. This process was conducted by the tribunes and it allowed them to select among all men of military age between 17 and 46. This continued until all four legions reached the required manpower. Roman citizens had an obligation to serve in the armed forces when required and Polybius gives the length of service as 16 years for infantrymen – that could be prolonged to 20 in case of emergency – and 10 years for cavalrymen.²⁰⁴ Keppie asserts that these figures are the maximum length of service in the legions and suggests that, normally, soldiers were not expected to serve for such a long time.²⁰⁵ Since during the Republic there was not a standing army, service was generally limited to a single campaigning season, though discharged soldiers would be liable in the next *dilectus*. Such soldiers may have been called *evocatii* – from *evocatus*, “to call out” –, but our sources on the *evocatii* are all later – Caesar and Appian²⁰⁶ – and this suggests that it was a late republican term.²⁰⁷

Military service was part of the expectations on citizens and, for this reason, the penalties against those who refuse to serve in the army were severe. Livy says that, during the early Republic, defaulters were usually stripped and whipped in order to humiliate them before their fellow citizens.²⁰⁸ Later, Cicero says that those who refused to serve could be sold into slavery since their conduct showed that they were not worthy of being free men.²⁰⁹ Suetonius, finally, says that those who tried to avoid military service could be sold at auction together with their property.²¹⁰ Nevertheless, the sources also tell us that there were

²⁰⁴ Polybius, VI. 19

²⁰⁵ Keppie, *The Making of the Roman Army*, 33

²⁰⁶ Caesar, *BC*, III. 4; Appian, III. 46 is talking about Antony's *evocatii*.

²⁰⁷ Keppie, *The Making of the Roman Army*, 34

²⁰⁸ Livy, II. 55

²⁰⁹ Cicero, *Pro Caecina*, 99

²¹⁰ Suetonius, *Aug.* 24

certain categories and individuals who enjoyed exemptions from military service called *vacationes* – which could be suspended in cases of emergency.²¹¹

Conscripts were not necessarily unwilling soldiers. Brunt suggests that until the third century, Rome fought mainly defensive wars and patriotic sentiments perhaps played a role during the *dilectus*.²¹² This is certainly suggested by a passage of Valerius Maximus who says that men often came forward and gave their names before they were called by the tribunes.²¹³ A more prosaic explanation for this enthusiasm is that recruits wished to secure the *stipendium* and the possibility of land or any other personal gains from war. Furthermore, if recruits were assumed to be willing, then a process of conscription was simply the easiest way of raising an army.

While describing the process of recruitment, Polybius gives us the strength of a legion and his passage and makes it possible to estimate the size of the Roman citizen army in the third century.²¹⁴ Normally, a Roman legion was composed by 4,200 infantrymen, which could increase to 5,000 in case of danger, plus a standard force of 300 cavalrymen. Since the Roman army was divided into four legions, we can assume that in the third century – certainly for its first half – the Romans deployed armies of 18,000 to 21,200 men.

The accounts of the wars fought during the third century offer narrative evidence for the strength of the Roman army before the dramatic and unprecedented increased demand for manpower caused by the Second Punic War. According to Dionysius, in the Pyrrhic War the Romans deployed an army of more than 70,000 men – 20,000 of whom were Roman citizens.²¹⁵ Frontinus, a much later source, says that the Roman army at Asculum (279) had a strength of 40,000 men.²¹⁶ Dionysius, who provides us one of the few descriptions of the *socii* during a battle, is calculating the Roman forces as four legions (20,000) plus

²¹¹ *Vacationes* were usually given to: i) *Seniores* (Appian, *BC*, II. 150); ii) Men who had served the required *stipendia* (Livy, XXXIV. 56); iii) Infirm; iv) Some priests, officials, and their attendants; v) Citizens in the maritime colonies (Livy, XXVII. 38 and XXXVI. 3 for suspensions in 207 and 191); vi) Individuals who received immunity for various reasons.

²¹² Brunt, *Italian Manpower*, 392

²¹³ Valerius Maximus, II. 3: a clear reflection of the political values and contrasts of the late first century than the sentiments of the fourth and third centuries.

²¹⁴ Polybius, VI. 20

²¹⁵ Dionysius, XX. 1. 8

²¹⁶ Frontinus, *Strat.*, II. 3. 21

allies – more than double in this occasion.²¹⁷ Frontinus, on the other hand, does not make any distinction between Romans and Italians in the army – typical of later sources. There is obviously a significant difference here and this may be related to an assumed ratio of allies to Romans, with Frontinus simply assuming that there were as many allies and Romans, but that is an assumption we need to test against other evidence.

The other major conflict of the first part of the third century is, without a doubt, the First Punic War (264-241). Polybius says that in 263 the Romans decided to send 40,000 men to Sicily.²¹⁸ In 260, at the battle of Mylae, a Carthaginian fleet of 130 ships was defeated by a Roman fleet, possibly of a similar size. One hundred and thirty *quinqueremes* may have been crewed by about 8,840 men and may have carried 10,400 soldiers.²¹⁹ The fleet was commanded by the consul Gaius Duillius.²²⁰ He was later honored for his victory, the first major naval victory in Roman military history, with a column erected in the forum, the *columna rostrata*, decorated with the bronze rams of the captured vessels. The army with which Regulus invaded Africa in 256/5 was possibly a consular army of two legions not at full strength, plus allies, since it was composed of 15,000 infantrymen and 500 cavalrymen.²²¹ Finally, in 250, during the siege of Lilybaeum, the last major land-battle of the war, the Romans deployed a combined consular army and a fleet of 200 ships in order to isolate the last Carthaginian stronghold in Sicily.²²²

These great conflicts demonstrate that Rome could put large forces into the field. The Roman armies were always supported by the contingents of the *socii* – allies – recruited from the Latin colonies and allied Italians. The allied contribution will have changed with the First Punic War mainly because of the introduction of the fleet, described by Polybius as the greatest in history, whose crews were recruited mainly from maritime Italian cities, but also, as suggested by Miles, from poorer Roman citizens.²²³ It is possible that this long and intense war forced the Romans to deploy more than their traditional army of four legions: when Regulus' invaded Africa, Roman forces were fighting in Sicily.

²¹⁷ Dionysius, XX. 1. 5: “The Latins, Campanians, Sabines, Umbrians, Volscians, Marrucini, Pelegini, Ferentani and their other subjects they divided into four divisions and mingled them with the Roman legions, in order that no part of their lines might be weak.”

²¹⁸ Polybius, I. 16 says that each legion had 4,000 infantry and 300 cavalry.

²¹⁹ Michael Pitassi, *Roman Warships* (Woodbridge, 2011), 100, says that a third century quinquereme had a crew of 364 men divided between 68 crew members and 296 rowers. Also, a quinquereme was able to transport a centuria of 80 men.

²²⁰ Polybius, I. 23

²²¹ Polybius, I. 29

²²² Richard Miles, *Carthage Must Be Destroyed, the Rise and Fall of an Ancient Civilization* (London, 2010), 190

²²³ See Polybius, I. 63. Miles, *Carthage Must Be Destroyed*, 181

The role of the *socii* in the army was extremely important and was the result of the custom of the Romans to impose treaties to the defeated people of Italy, a custom that went back at the time of the battle of Lake Regillus (493) and the introduction of the *foedus cassianum*.²²⁴ This treaty reflected common interests and enemies since the fifth century was dominated by continuous wars against Aequi and Volsci.²²⁵ Erdkamp, for this reason, suggests that Rome was not the leading power of this alliance, but just one of its members – though a very powerful one.²²⁶

After the conquest of Veii and the defeat of Aequi and Volsci, cooperation between the Latins diminished and the result was the Romano-Latin War of 340-338. This war marked as the turning point in the relationships between Rome and its allies with the establishment of a hierarchy among the allies: first of all, there were the Roman citizens, then the citizens *sine suffragio*, the people of Latin citizenship, and finally the other allied communities who had bilateral treaties with Rome. Yet, the various hierarchical relations within Italy established through Roman conquests and annexations were all expressed in terms of the provision of manpower to Rome's armies.²²⁷

The result of this policy of demanding troops from allied and associated communities was an enormous increase in Rome's military manpower since, just like their Roman counterparts, the inhabitants of the Italian cities were required to send troops to Rome each year. Polybius describes the recruitment process of the allies:

“At the same time the consuls send out orders to the magistrates of the allied cities in Italy from which they wish to raise troops stating the numbers required and the day and the place at which the men selected for service must appear. The authorities then choose the men [...], appoint a commanding officer and a paymaster and dispatch the contingent to Rome.”²²⁸

²²⁴ Dionysius, VI. 95 and Livy, II. 33; Cicero, *Balb.*, 53 describes a bronze table that was on public show and contained the terms of the treaty. On the importance and high number of treaties between Rome and the Italian communities see John Rich, ‘Treaties, allies and the Roman Conquest of Italy’, in eds. De Souza, P., and France, J., *War and Peace in Ancient and Medieval History* (Cambridge, 2008), 54

²²⁵ Livy, II. 22 suggests that Aequi and Volsci were already a problem at the time of the battle of Lake Regillus.

²²⁶ Paul Erdkamp, ‘War and State Formation in the Roman Republic’, in ed. Erdkamp, *A Companion to the Roman Army* (Malden, 2007), 100

²²⁷ See Rich, ‘Treaties’, 58

²²⁸ Polybius, VI. 21

So we can clearly see that local Italian magistrates were responsible for the *dilectus* in the Italian cities.²²⁹ Each town provided a contingent of infantrymen plus one or more *turmae* of cavalry. The allies were supervised by twelve *praefecti* nominated by the consuls and called *praefecti sociorum*.²³⁰ The *socii* usually occupied the left and right wing of the army and, for this reason these formations are called by modern historians the *alae sociorum*, though this term is never used by our sources explicitly for the allies.²³¹ One task of the *praefecti sociorum* was the selection of the best soldiers among the allies, called the *extraordinarii*, an elite force composed of 1/5 of the allied infantry and 1/3 of the cavalry.²³² Finally, at the time of the First Punic War, as suggested by both Livy and Polybius, coastal cities were required to furnish ships and crews.²³³

Polybius says that the allies contributed the same number of infantrymen as the Romans, but three times more cavalrymen.²³⁴ With the addition of the allies and their manpower, the standard Roman army would have increased to between 38,400 and c. 45,000 men.

The dating of this discussion is, as with much else in book VI, problematic: Livy says that at the battle of Sentium (295), the Latins and allies outnumbered the Roman legionaries.²³⁵ Although there are no surviving sources that can tell us how these contingents were armed or fought, we can assume that they were similar to their Roman counterparts since Livy states that when Romans and Latins fought against each other in 340, they were impossible to distinguish since their equipment and tactics were exactly the same.²³⁶ Yet, our sources rarely mention the *socii*. Dionysius offers one of the earliest descriptions of cooperation between Romans and allies in the army at battle of Asculum against Pyrrhus (279).²³⁷ Livy

²²⁹ The Greek text says 'the cities', but earlier had mentioned *archousi* translated in Latin as magistrates. It is clear that Polybius is talking about local authorities.

²³⁰ Polybius, VI. 26

²³¹ Polybius, VI. 26; Gellius, *AN*, XVI. IV. 6 mentions the terms "*alae*", but he is referring to the cavalry, not the contingents of allies.

²³² Polybius, VI. 26

²³³ Polybius, I. 20 and Livy, XXXVI. 42

²³⁴ Polybius, VI. 26

²³⁵ Livy, X. 26

²³⁶ Livy, VIII. 8: "They knew that maniple would fight maniple, the whole line of *hastati* match *hastati*, *principes* against *principes*, while centurions must engage each other..."

²³⁷ Dionysius, XX. 1, says that Latins, Campanians, Sabines, Umbrians, Volsci and Frentani were divided into units posted between the legions.

makes no mention of the allies until the Hannibalic War while Polybius mentions the allies for the first time at the time of the much discussed mass mobilisation against the Gauls in 225.²³⁸

It has been suggested that Polybius regarded the allies as part of the Roman army and made no effort to distinguish them.²³⁹ An example of this could be the procedure of the Roman army of plundering a city and dividing the booty among the soldiers as in the case of the fall of Carthago Nova in 210.²⁴⁰ In this case, Polybius describes the army as composed of four *stratopeda* – legions –, two of Romans and two of allies. The division of the booty was organised by the *chiliarchs*, the tribunes, who: ‘...equally distribute the proceeds equally among all’. Roman and allied units appear to have been organized and treated equally.

We can see a confused pattern in Polybius’ description of the marching order of the army and its battle order.²⁴¹ When breaking camp, the consular legion usually moved in this formation: at the head of the column, as advance guard, there were the *extraordinarii* who were followed by the first of the two *alae sociorum*, the right one in this case. After them there were the two Roman legions and, at the end, the second – left – *ala sociorum* who acted as the rearguard of the column. Although Polybius says that the position of the *extraordinarii* at the head was a rule.²⁴² In this case, we can see a clear division between Romans and allies. The battle order, in contrast, shows homogeneousness: the army advances in three parallel columns formed by *hastati*, *principes* and *triarii*; Polybius doesn’t mention Romans or allies.

The same could be said for Livy and his battle narratives. Usually he doesn’t mention the allied units at all and just refers to the Romans and their army in general terms. Yet, Livy’s lists of casualties sometimes distinguish Romans and allies: between 7,000 and 13,000 Romans and allies were killed in the battle of Herdonea (210), 1,700 Romans and 1,300 allies died in a victorious battle in Apulia (209) and only 200 Romans and allies perished after a great victory in Spain (205).²⁴³

²³⁸ Polybius, II. 24

²³⁹ Paul Erdkamp, ‘Polybius and Livy on the Allies in the Roman Army’, in eds. Lo Cascio, E. and de Blois, L., *The Impact of the Roman Army (200 BC – AD 476)* (Leiden/Boston, 2007), 55

²⁴⁰ Polybius, X. 16

²⁴¹ Polybius, VI. 40

²⁴² Pat Southern, *The Roman Army: A Social and Institutional History* (Santa Barbara/Oxford, 2006), 94; Southern adds that in case of an attack to the rear, the *extraordinarii* could be moved to the rearguard.

²⁴³ On the losses at Herdonia, see Livy, XXVII. 1; Livy XXVII, 14 on the losses after the engagement in Apulia. Finally, see Livy, XXIX. 2 on the losses in Spain in 205.

The ratio between Romans and allies varies in different sources: while Polybius suggests an almost 1:1 ratio – a standard Roman army of four legions counted 18,000 Romans plus 20,400 allies that could be increased to 21,200 and 23,600 in case of emergency –, Livy says that the allies were double the number of the Romans in the early third century and suggests that this ratio applied for the rest of the century (see below).

* Manpower in the third century, Romans and allies in the army

The following table shows the census figures for the third century:

DATE	CENSUS	SOURCE
293	262,321	Livy, X. 47
280	287,222	Livy, <i>Per.</i> , 13
264	292,234	Eutropius, <i>Brev.</i> , II. 18
241	241,212	Livy, <i>Per.</i> 19
241-219	270,212	Livy, <i>Per.</i> 20
204	214,000	Livy, XXIX. 37

These figures, to which we can add the 250,000 of 323, vary from a low of 214,000 in the Second Punic war to a high of 292,00, but there is a clustering of figures at c. 250,000. These variations can, I believe, be explained by three crucial factors: the expansion of Roman territory, the migration to Latin colonies and finally with the 214 figure, war losses.²⁴⁴ The figures provide a base-line for the male population of between 250,000 and 290,000 for much of the third century.

If these figures are to be taken seriously, then the consular armies would be between 6.8% and 8.3% of the available manpower before the Second Punic War. Although these figures seem not particularly high, it is possible, as we saw above, that other legions were kept under arms apart from the consular armies. In particular, the First Punic War may have required longer service and multiple armies, including garrisons, to be maintained for extended periods. The data is, however, simply not good enough to reach firm conclusions. Nevertheless, when we come to Polybius' extraordinary register of Rome's military

²⁴⁴ The foundation of colonies also had an important part in the census figures since we may assume that the average number of settlers was nearly 4,000 – and 3,000 of these were Romans – causing an important movement of people. Livy, XXVII. 9 in this passage, regarding the twelve colonies during the Second Punic War, the consuls remind to the delegates that they were Romans of Roman descent. War losses also had effect on population, but until the First Punic War, we have no data to evaluate mortality in war. The census figures of 241 and 204 – shown in the table – indicate the strong decrease due to the casualties in the two Punic Wars.

forces on the verge of the Second Punic War, we see that in addition to the consular armies, there were another 30,300 troops under arms. If this figure were standard, we would be looking at proportionately higher rates of mobilization.

The key data for the number of allied soldiers in the Roman army comes in the much discussed passage Polybius II, 24 on Rome's manpower at the moment of the Gallic invasions of 225. This is an extraordinarily difficult and complicated section, and I summarise it below.

MEN UNDER ARMS (infantry and cavalry)	
ROMANS	ALLIES
22,000 (in consular armies)	32,000 (in consular armies)
8,800 (in Sicily and Tarentum)	54,000 (Sabines and Etruscans)
21,500 (reserve at Rome)	20,000 (Umbrians and Sarsinates)
	20,000 (Veneti and Cenomai)
	33,000 (reserve at Rome)
Total Romans: 52,300	Total allies: 158,000
GRAND TOTAL: 210,300	

MEN REGISTERED FOR SERVICE (infantry and cavalry)	
PEOPLE	NUMBERS
Romans and Campanians	273,000
Latins	85,000
Samnites	77,000
Iapygians and Messapians	66,000
Lucanians	33,000
Marsi, Marrucini, Frentani and Vestini	24,000
TOTAL: 558,000	

The total number given by Polybius is 768,300 men (infantry and cavalry) in arms and capable of bearing arms. Problematically, some major groups are missing from Polybius' list, especially the Greeks of Southern Italy and the Bruttians, while the Veneti and the Cenomani, who were not under direct Roman control – even though, as suggested by Polybius, there were some forms of military cooperation – are included.²⁴⁵

Brunt suggests that the Polybian list relates only to allies who were actually obliged to furnish troops *ex formula togatorum* while the Greeks and the Bruttians, as *socii navales*, did not furnish troops, but

²⁴⁵ Polybius, III. 23: Veneti and Cenomani agreed to furnish military cooperation.

ships and crews.²⁴⁶ Walbank agrees on the Greeks but says that the Bruttians' contribution was so much less important that it was not necessary add them to the list.²⁴⁷ Yet, according to Livy, some Greek cities did furnish infantry and, regarding the Bruttians, it would have been odd to require them to provide naval units or that they were not needed.²⁴⁸ Toynbee suggests that Fabius Pictor omitted the figures for the Greeks and the Bruttians in error.²⁴⁹

If we want to add these people to the list, we have to try to figure out their numbers and Toynbee proposes a potential military force of 15,000 Bruttians and 8,700 Greeks, but these figures are clearly too low.²⁵⁰ I believe that it is hard to believe that the Bruttians were able to raise only half of the manpower of the Lucanians. Both people were well-established regional powers in Southern Italy before the Roman conquest, and, for this reason, they were probably capable of raising considerable numbers of soldiers.

Part of a larger Oscan *koine*, these people became more prominent in Central-Southern Italy especially from the fifth century when they started to put pressure on the Greek cities.²⁵¹ Their movements caused a chain reaction that deeply influenced the entire Italian peninsula: in Magna Graecia the effects of these migrations were clearly negative as the Greek cities were attacked by Lucanians, Brutii and Iapygians while in Campania, the Campanians and Samnites progressively occupied the entire area overthrowing the Etruscan and the Greeks – Capua in 423 and Cuma in 421 – until Naples was the only Hellenic city on the Tyrrhenian coast.²⁵² At the end of the fifth century a vast part of Italy, that included Samnium, Lucania, Bruttium, northern Apulia and Campania, was inhabited by people who spoke the same Oscan dialect and shared common religious beliefs, social customs and political institutions.

²⁴⁶ Brunt, *Italian Manpower*, 50

²⁴⁷ Frank Walbank, *A Historical Commentary on Polybius* (Oxford, 1957-1979), 199

²⁴⁸ Livy, XXIII. 1 and XXIV. 13

²⁴⁹ Arnold Toynbee, *Hannibal's Legacy* (Oxford, 1965), 492; also see Virgilio Ilari, *Gli Italici nelle Strutture Militari Romane* (Milano, 1974), 85

²⁵⁰ Toynbee, *Hannibal's Legacy*, 494-495

²⁵¹ Emily Dench, *From Barbarians to New Men. Greek, Roman, and modern perceptions of Peoples of the Central Apennines* (Oxford, 1995), 208 gives an interesting relationship between these people: the Samnites are depicted as the *archegetai* – founders – of the Lucanians, who, on the other hand, were the *apoikoi* – colonists. The same relationship existed between the Lucanians and the Brutii, with the first being the *archegetai* and the latter the *apoikoi*.

²⁵² Herodotus, VII. 170, reports the disastrous defeat of Tarentum by the Iapygians in 473.

After a rebellion against the Lucanians, the Brutii quickly formed a powerful confederation capable of defeating their former masters and conquering several Greek cities.²⁵³ De Juliis says that the main difference between the Lucanians and the Brutii was that the latter were not influenced by Greek culture, yet such an assumption seems extreme, unlikely, and unwarranted.²⁵⁴ Dench reminds us that Ennius described them as *bilingues* since they spoke both Oscan and Greek.²⁵⁵ According to Polybius, the Lucanians in 225 could raise 33,000 men (infantry and cavalry); we can assume that the Bruttian forces would be similar. Obviously, we don't have any Bruttian census figures, but we can consider that Livy reports that, in 215, the Bruttians raised an army of 15,000 *iuniores* to attack Croton.²⁵⁶ This force, however, is not a representation of the total manpower of the Bruttians since not all their contingents were included for this campaign: Livy says that some communities, like Petelia, were still loyal to the Romans and, for this reason, it is possible to raise our total for Bruttian manpower.²⁵⁷

Regarding the Greek communities, by 225 the population of cities like Rhegium, Croton, Metapontum or Tarentum may have sunk somewhat after three centuries of tribulations: continuous wars, the invasions by Syracuse, the attacks by the Italian peoples like the Lucanian or the Bruttians, and finally Rome's conquests.²⁵⁸ In 209, 30,000 people of Tarentum were sold as slaves, a blow from which, one would imagine, it would take some time to recover. We may reasonably estimate the pre-war free population Tarentum and its territory as having been more than 60,000 people without danger of exaggeration.

Nevertheless, it seems possible that there was a difference between the total male population and those available for military service. We can hardly know how the Greek cities judged eligibility and negotiated that eligibility in agreement with Rome: Greek cities after all had tended to make extensive use of mercenary armies rather than relying on their own citizenry.²⁵⁹ One presumes that Rome imposed a military levy on communities having made a judgment on the likely number of troops the community

²⁵³ Strabo, VI. 4, says that they were shepherds who served the Lucanians. Even their name indicated their servile origins: Brutii was used by the Lucanians to indicate rebel slaves. Diodorus, XVI. 15, makes a list of these cities: Terina, Hipponium, Thurii while Diodorus, XII. 22 mentions the fall of Sybaris.

²⁵⁴ Ettore De Juliis, *Magna Grecia: l'Italia meridionale dalle origini leggendarie alla conquista romana* (Bari, 1996), 255

²⁵⁵ Dench, *From Barbarians to New Men*, 50. On the bilingualism of the Brutii, see Ennius, *Ann.* 477

²⁵⁶ Livy, XXIV. 2

²⁵⁷ Livy, XXIII. 30

²⁵⁸ Rhegium did not recover from the massacres and evictions on its male Greek citizens by the "Campanian Legion" in 282. Half of the area of Croton was uninhabited since the Pyrrhic War (Livy, XXIV. 4) and its population in 225 was of just 2,000 people (Livy, XXIII. 30). Metapontum was deserted in Pausanias' time (Pausania, *GD*, VI. 19). 30,000 people from Tarentum were sold into slavery after its fall in 209.

²⁵⁹ Dionysius, XX. 1 says that Tarentum contributed to Pyrrhus' army with a force of mercenary infantry and cavalry.

could provide, but there may have been some recognition of local traditions of military service. It is thus possible that some communities had limited demands placed upon them.

If we make some account for the military manpower of the Greek cities and of the Bruttii to the listing, we would be looking to add perhaps another 40,000 men to military resources of Rome.

Much about the Polybian passage is debatable. We would like to know the original source of the statistics for instance. It is, however, a very unusual text and the process of enumeration of military resources in such detail, though far from unparalleled, is not common among historians. For Rome, this is a unique source. The passage clearly has a rhetorical function in that it is meant to portray the intimidating power of Rome on the verge of the Punic War, and in this sense it parallels Josephus' adumbration of Rome's resources on the verge of the Jewish War.²⁶⁰ Nevertheless, the figures are unlikely to have been an invention. The most obvious conclusion a reader is to draw from the passage is the massive manpower available for military service at the verge of the Second Punic War. At around 800,000 men, Rome had an enormous, almost endless, reservoir of soldiers.

In book VI, Polybius describes the Roman army as a single force composed of four legions; even though it is difficult to date book VI, it is possible that the Roman army was organised in this way up until the early third century. In this passage of book II, however, the legions and the number of soldiers under arms is 52,300 men divided into ten legions suggesting the recruitment and deployment of three different armies.²⁶¹ It seems possible that the Polybian portrayal of consular armies of four legions raised annually was anachronistic from as early as the First Punic War.

Polybius also provides us with data with which make a comparison between Romans and allies in the army. We know from book VI that, during the levy, the number of *socii* recruited was close to that of the Romans (1:1 for infantry, 1:3 for cavalry), but in this catalogue Polybius is suggesting that the allies were actually three times more numerous than the Romans since 158,000 were under arms against 52,300 citizens. However, the *socii* are divided by Polybius: 65,000 were actually in the army, while the other

²⁶⁰ Josephus, *The Jewish War*, III. 64-69

²⁶¹ Polybius, II. 24: the four standard consular legions, two legions in Sicily and Tarentum and four more legions at Rome.

94,000 are other allied troops perhaps relegated to garrison duties.²⁶² The ratio is, however, very similar to that of the legions, many of which were in garrison. Finally, this list could be used for trying to estimate the enlistment rate for both Romans and allies.

Can we consider Polybius' numbers of men registered for service – Romans and Campanians – a census figure? The closest census figure by date come to us from Livy for the period between 241 and 219: in this occasion the Roman population was of 270,000 free male citizens, close to the 273,000 suggested by Polybius.²⁶³ If, as he said, 52,300 Romans were under arms in 225, this means that 19% of Roman male citizens were serving in the army.

For the allies, on the other hand, it is much more difficult. If we exclude Romans and Campanians from the list, we have 285,000 people available for service of which 158,000 were actually under arms: 55.4% of them were in the army, clearly too many. If we count only those who were in the armies, and not used as garrison troops, so 65,000 men, we can see that 22.8% of those available were recruited, still very high. We may have to assume that the figures for available manpower provided by Polybius come from documentation rather different than the Roman census.

As already mentioned, the *foedus Cassianum* of 493 was probably the first point at which a formula was established for military collaboration between Rome and the Latins (see Dionysius VI, 95) and the relative contributions of the various communities. It seems likely that after the war of 340-338 it was replaced with the *formula togatorum*, described by Livy as the instrument that governed the military obligations of Roman allies.²⁶⁴ The main function of this document was to prescribe the number of men each community must send to Rome. The obligations of the allied cities would have varied from *dilectus* to *dilectus* since, as suggested by Polybius, during the levy, the consuls informed the allied magistrates how many troops each community had to provide and thus a political decision must have been taken in Rome, presuming referring to the *formula*, as to the proportion of available manpower that would be

²⁶² Polybius, II. 25-26, says that when the Gauls invaded Etruria they were reached by: "...the army the Romans had posted in Etruria..." near Faesulae, possibly part of the Sabine-Etruscan force of the previous list. After the battle, this force was rescued by the arrival of the consul Lucius Aemilius Paullus and his army.

²⁶³ Livy, *Per.*, 20

²⁶⁴ Livy, XXVII. 10; also see Will Broadhead, 'Migration and Hegemony: fixity and mobility in second century Italy', in (eds.) De Ligt, L., and Northwood, S., *People, Land and Politics*, 456 and 468 on the fixed nature of the *formula togatorum* for allies and colonies.

demanded.²⁶⁵ It seems quite likely that the Romans will have had an agreed listing of the populations of various areas who could be called upon to perform military service, but it would seem that these numbers were likely established by negotiation rather than by census and it may be these figures which have informed the Polybian account.

Before the First Punic War, the Romans regularly mobilized four legions each year and the *socii* contributed sending their own forces: as many infantrymen as the citizens, but three times as many cavalry (according to Polybius).²⁶⁶ On the other hand, Velleius Paterculus states that the Italian allies had always furnished twice as many soldiers as the Roman citizens.²⁶⁷ Although this argument represents the indignation of the Italian rebels at the time of the Social War, Appian seems to confirm this ratio by saying that during the Hannibalic War, the allies had to furnish twice as many troops as the Romans, though obviously he and Velleius may have been using the same source.²⁶⁸

Livy, in his account, seems to confirm the ratio between Romans and allies of 1:2 for infantry, 1:3 for cavalry: in 218 six legions were recruited and divided into three forces.²⁶⁹ Tiberius Sempronius, with two legions – 8,000 infantrymen and 600 cavalrymen – and 16,000 allied infantrymen plus 1,800 cavalrymen, took command of the operations in Sicily and Africa. Publius Cornelius Scipio, commander of the troops in Spain, had a force of two legions with the support of 14,000 allied infantry and 1,600 cavalry. Finally, a third army, composed by two legions and 10,000 allied infantry and 1,000 cavalry was sent to Gaul.

This passage is another suggestion of the recruitment and deployment of multiple armies in the second half of the third century while, regarding the role of the allies, Livy is suggesting a strong participation: almost 45,000 against 25,800 Romans. It is interesting that the ratio is not always the same, but it changed – possibly – according to the importance of the front, but, in all cases, the allies were more numerous than the Romans.

At the beginning of this chapter, I have tried to understand the close connection between the army and Roman society also by showing the proportion of men recruited into the army. The key question that I

²⁶⁵ Polybius, VI. 21

²⁶⁶ Polybius, VI. 26

²⁶⁷ Velleius Paterculus, *RH*, II. 15

²⁶⁸ Appian, VII. 2. 8

²⁶⁹ Livy, XXI. 17

would like to made – and try to answer – in order to conclude this chapter is how significant was the burden of recruitment in the third century, now a well-defined and organised system, on the Romans.

Comparing one more time the census figures with the number of Roman citizens serving in the army, could give us a general idea of how heavy was the burden of recruitment on the population in the third century. As shown, there were between 18,000 and 21,200 citizens in a typical Roman army of this period while the census figures are showing a population eligible for military service from 262,000 free men in 293, to its peak of 292,000 in 264 to the 214,000 in 204. However, this is doable only for the first half of the century, especially before the Punic Wars when the Romans may have started to deploy more than one consular army and, consequently, recruit more men:

DATE	CENSUS	CITIZENS RECRUITED
293	262,321	6.8%
280	287,222	6.2%
264	292,234	6.1%
241	241,212	7.4%

Of course, all these numbers are nothing more than plausible guesses since they are relying entirely on the census figures, but they give an idea of the burden of recruitment and how much of the population was affected. Once the recruitment system was perfected, the Romans maintained recruitment at relatively low levels and were actually able to recruit more men than those usually deployed in the fields as showed by our sources.

The second part of the third century is marked, of course, by the two Punic Wars and the great military effort that they required. After all, the deployment of multiple armies suggested by both Polybius and Livy that started during the First and became a custom in the Second, changed the level of recruitment forcing the Roman citizens to sustain a much stronger burden.

Livy, in his passage about the Roman forces in 218, says that six legions were deployed and 25,800 citizens were in the army suggesting that 9.5% of them were in the army. But it is Polybius, and his description of the army in 225, that is suggesting a really high recruitment level: he says that 273,000 citizens were available for service and 52,300 were enlisted in the army – divided into ten legions – for a total of 19% of citizens recruited. A later source, Appian, suggests that in 217 the Roman army was

composed by thirteen legions (5,300 men per legion) for a total of 69,000 Romans in the army.²⁷⁰ If the census figures of the period indicates that 270,000 males were available for service, it means that 25% of them were in the army.

At the end of the third century, we are looking at potentially very high levels of recruitment, not quite the one-third level suggested as a maximum figure. Yet, if we take out the injured and the unfit, the aged and those who were immune for various other reasons, then the manpower realistically available to the recruiting tribunes is likely to have been very much smaller than the totals given in the census figures. As we shall see in the next chapter, the Second Punic War is likely to provide us with a guide to the maximum level of mobilization possible in Roman society, but even before that war, we are looking at major mobilizations of Roman manpower.

Trying to do the same process for the *socii*, on the other hand, is a task of enormous, almost impossible, difficulty. Even though Polybius, II. 24 gives an idea of the potential manpower of Italy in the second half of the third century, it is still very difficult to use it to understand the burden of recruitment for the Italian communities.²⁷¹ It is clear from Livy, Velleius and Appian that allied numbers in the army were approximately double those of their Roman counterparts, which would suggest that there was a considerably larger recruitment pool. At the very minimum, we would have to assume that the Italian population was double that of Rome. We might think it more comfortable to assume that the Italian population was considerably larger even than that estimate and that the pressure of recruitment on the Italian communities were correspondingly less.

Although the data we can draw from the disparate and far from perfect sources surveyed in this chapter presents us with considerable problems, the material does point in the same direction. It seems that from the late fifth century onwards (though we cannot be firm about the date), the Romans recruited from a broad cross-section of their society. The need to recruit from the poorer elements of Roman society drove certain political and institutional changes. These included the introduction of pay, but also are likely to be related to the development of colonization as a means of rewarding successful armies. Furthermore, the Romans appear to have recruited a large proportion of their population into the army.

²⁷⁰ Appian, VII. 2. 8

²⁷¹ In terms of men registered for service, Polybius, II. 24 also presents a major problem: it says that, excluding the Romans and Campanians (273,000), the rest of the allies contributed with 285,000 men available for service of which 158,000 (55.4%) were already in the army.

The earlier we look for data, the less reliable it is, but the military reforms of the fifth and fourth century would appear to be designed to generate larger armies and make maximum use of the population resource. Although it is impossible to come to a definitive estimate of Roman population in the absence of reliable census data, even high estimates of Roman population density, perhaps unrealistically high for this period, would entail high recruitment rates. By the third century, we seem to have more reliable census data, but there is considerable uncertainty as to whether the consular armies were the only legions under arms at any one time. If this were the case, military recruitment would be under 10%, but if the number of legions under arms were more than four, as seems very likely after the middle of the century, then we would have to assume proportionately higher percentages of the manpower being recruited. When we get to the last decades of the century, before the Second Punic War, recruitment appears to have been high.

It seems likely that the ability of the Romans to mobilize such a high proportion of their population was largely responsible for the military success and it seems further likely that the willingness of the population to serve was driven by the economic benefits of military success. The economic effects of Roman military service on the Roman population is likely to have been considerable.

The issue with Italians is likely to have been somewhat different. Although Polybius can be read as suggesting an enormous military burden was placed on the Italian population, there is good reason for regarding his population figures for Italy with great suspicion. It seems likely that the burden on the Italian population, though heavy, was less than that placed on the Roman population. We have, obviously, to admit to the speculative nature of that supposition.

Chapter 4

THE RECRUITMENT SYSTEM OF THE ROMAN ARMY

Part 2: the Second Punic War

As we have showed in the previous chapter, Polybius' passage on Roman manpower at the time of the Gallic invasion of Italy of 225 describes a manpower of about 800,000 men in service or available for service divided between Roman citizens and almost all the Italian allies.²⁷² This passage also showed that, at some time since the first conflict against Carthage, the Romans had begun to deploy more than the standard four consular legions (see previous chapter). This practice became common during the third century and reached its peak during the Second Punic War, and came to be such a typical feature of the Republican army that, in the period between 200 and 100, instead of being a standard number of legions in service, numbers changed according to the situation and the necessity.²⁷³

The Second Punic War tested Rome's military system to its limit and attests to the capabilities of Italy in the third century. The strains on Roman manpower were not to be matched until the great conflicts of the first century such as the Social War and the Civil Wars which increased enormously the number of men recruited in the army. The ability of Rome to recruit confirms Polybius' numbers – or at least showing that he did not substantially exaggerate Italy's military resources. Never before had Rome required such number of men to serve in the legions, and although the burden of recruitment decreased after the war, it never returned to early third century levels – as we will see in the following recruitment section.

Despite the strains, the Second Punic War did not bring many actual changes to the military structure, with the exception of the property requirement, that was reduced, with consequences on the census figures, manpower availability and the impact of military service on the Roman population.

²⁷² Polybius, II. 24

²⁷³ Brunt, *Italian Manpower*, 424 and 432-433. The period from 191 to 188 has the highest number of legions in service since the Hannibalic War, while, in some occasion, the number of legions diminished: in 120, for example, only 3 legions were in service (two in Spain and one in Macedonia).

Initially the number of legions in service was six in 218, but rapidly grew – in spite of the military defeats of the first years – until it reached twenty-five in 212-211. Then it stayed around twenty between 210 and 203, sixteen in 202 and finally fourteen in 201. Theoretically, 112,500 Roman citizens were in service in the legions at the peak of recruitment, but this number, based on the strength of Polybian legions, is debatable, as I shall argue below. Calculating the number of Italian allies in the armies of the Republic is substantially more difficult. Again, using Polybian numbers, it is possible to suggest a total of 127,500 *socii* under arms by 212-211.

The Second Punic War can be divided into three main phases: the first part is marked by Hannibal's victories, the second– and longest – part involved Hannibal's campaigns in Southern Italy and the Romans avoiding direct engagement with Hannibal and focusing on the Italian rebels or on other fronts, mainly Spain. Finally, the third and final part, is marked by the Roman counteroffensive, and ended with Zama.

In 218, at the beginning of the war, Livy states that 25,800 citizens and 44,400 allies were recruited, for a total of 70,200 men divided into six legions.²⁷⁴ Roman forces were divided in order to follow a precise strategy: to focus the war effort on Carthaginian's territory, especially in Spain and Africa, to keep troops in Sicily in order to avoid any Punic action on the island and finally to maintain a presence in Northern Italy, not because they expected an invasion there, but to discourage any uprising by the Gauls in an area not yet fully pacified after the completion of the conquest in 225.

For this reason, in 218 – late May or early June, two large colonies, Placentia and Cremona, were founded on the territories of tribe of the Boii.²⁷⁵ Both had 6,000 male colonists who were accompanied by a praetor with a legion and *socii* in order to protect them. Having received word that Hannibal had left Spain in June and would arrive in Northern Italy to fight the Romans, the Gauls attacked the two colonies. In November 218 the battle of Ticinus took place, effectively marking the commencement of the conflict.

- Italian front part 1 (218-216): from Ticinus to Cannae

- Ticinus (November 218)

²⁷⁴ Livy, XXI. 17

²⁷⁵ Livy, XXI. 24

According to Polybus, Hannibal's army was enfeebled by the long journey from Spain when it reached the Po Valley in 218. Crossing the Rhone, Hannibal's forces were reported as 38,000 infantrymen and 8,000 cavalrymen. Almost half was lost when he arrived in Northern Italy, so, probably around 20,000 men and 6,000 cavalry arrived in Italy.²⁷⁶

In 218, the Roman army was still similar to a standard Polybian force, although, as we know, from the First Punic War more legions than the regular four could be recruited. From the original deployment of troops described by Livy, the two legions army designated to guard Gaul was stationed at Ariminum while the consuls were recruiting forces in order to prepare the invasions of Spain and Africa.

The uprising of the Gauls and the rapidity of Hannibal's march took the Romans by surprise and forced them to change their plans: the praetor Lucius Manlius, moved his troops out of Ariminum in order to relieve Mutina, recently attacked by the Boii, but his army was ambushed twice by the Gauls and lost 1,200 men.²⁷⁷ Next, the consul Publius Cornelius Scipio, who was assigned to fight the Carthaginians in Spain, sent one of his two legions, together with 5,000 *socii*, to Northern Italy in order to support the troops and people of Placentia and Cremona and started to recruit a new legion before leaving for Massalia, where he failed to intercept Hannibal.²⁷⁸ After deciding to send his army to Spain under the command of his brother Gnaeus, Publius returned to Italy and took command of Manlius' two legions.²⁷⁹ So, by the time of Hannibal's arrival, the Roman forces at the Ticinus counted only two legions – plus *socii* – for a total of 19,200 men (infantry and cavalry), minus the losses already suffered.

The battle of Ticinus was a minor event and one of the smallest actions of the war since it was nothing more than a large skirmish, but it was the first encounter between Hannibal and the Romans in Italy. The most important aspect of this battle was that Rome's defeat further encouraged the Gallic uprising that multiplied Rome's problems.²⁸⁰ There is uncertainty regarding the losses of the Ticinus. Casualties

²⁷⁶ Polybius, III. 60

²⁷⁷ Livy, XXI. 25

²⁷⁸ Livy, XXI. 26

²⁷⁹ Livy, XXI. 39

²⁸⁰ Polybius, III. 60: the Gauls joined him even before the battle, after Hannibal defeated the Taurini; Polybius, III, 66; Livy, XXI. 48: right after the battle of Ticinus, more than 2,000 Gauls in the Roman army deserted to Hannibal, and later, at Clastidium, the commander of the garrison, Dasius of Brundisium, was bribed and gave this important supply center to the Carthaginians.

probably were not high. Polybius, III. 66 is the only source and says that 600 Romans (not specified whether it is citizens or allies) were captured after the battle and one must presume losses higher than that.

- Trebia (December 218)

Polybius says that at the battle of the Trebia the Romans deployed an entire army: 36,000 (16,000 Romans and 20,000 *socii*) men and 4,000 cavalry.²⁸¹ Livy's description is quite similar, though the Roman army was a little stronger: it shows an army of more than 38,000 men (18,000 Romans, 20,000 Latin *socii* and other auxiliary units of Cenomani) and 4,000 cavalrymen.²⁸² The main difference between the two sources is that Polybius is describing four weaker legions of 4,000 men while Livy, on the other hand, regular ones of 4,500 men each. Also, both of them are suggesting four stronger *alae sociorum* of 5,000 men each, while, usually, the *alae* had the same number of soldiers as their Roman counterparts (4,200).

We do not have any clear figure on the losses, but both Livy and Polybius tell us that, at the end, only 10,000 Romans managed to break the enemy lines and escape towards Placentia, meaning that 26,000 or 28,000 men between Romans and allies – both deaths and prisoners – were lost at the Trebia.²⁸³ Even though the Roman commander, Sempronius Longus, tried to hide the severity of his defeat, in reality, the battle of the Trebia was a severe blow to the Roman effort in Northern Italy – not only for the high losses – because it persuaded those Gauls yet uncommitted to embrace the Punic cause and thereby enhanced Hannibal's manpower.²⁸⁴

In summary, the Roman armies of 218 amounted to 25,800 legionaries in six legions, two in Spain, two in Sicily at first, but then moved to Northern Italy where a total of four were stationed. The number of allies was probably 44,400, assuming 15,600 in Spain and 17,800 initially in Sicily – but later moved to North Italy, where the other 10,000 were located.

²⁸¹ Polybius, III. 72

²⁸² Livy, XXI. 55

²⁸³ Livy, XXI. 56; Polybius, III. 74

²⁸⁴ Polybius, III. 75: Sempronius said that the battle was inconclusive, a missed victory because of the extreme weather conditions.

Losses at Trebia amounted to 26,000 to 28,000, of whom we would assume 12,000 or so were Roman. Ticinius probably added 2,000 to that number at least, including prisoners and we have 1,200 losses from the conflicts with the Gauls. Roman losses in 218 probably amounted to more than 14,000 with perhaps 16,000 Italian allies also falling.

- Lake Trasimene (June 217)

After the defeat at the Trebia, the senate was determined to prosecute the war vigorously. In 217, eleven legions were deployed on the various fronts of the war for a total of 105,600 men under arms – divided between 49,500 Roman citizens (in legions of 4,500 men) and 56,100 *socii* (in *alae* of 5,100 men). Of the previous army, two legions were in Spain, but an additional force was sent there later (probably one legion, as explained later in the Spanish front section), while four legions were deployed in Cisalpine Gaul and then followed Hannibal as he moved to Central Italy. New legions were recruited: two were stationed in Sicily, one in Sardinia and two urban legions were raised in Rome.

The newly elected consuls, C. Flaminius – a former tribune of the plebs, described by both Livy and Polybius as an aggressive demagogue – and his colleague Servilius Geminus, wanted to confine Hannibal in Northern Italy, but Hannibal managed to ambush the consular army as it was marching along the shores of Lake Trasimene. The result was a catastrophe: 15,000 citizens were killed – and we don't know how many allies – and between 10,000 and 15,000 were made prisoners, but we don't have any distinction between Romans and allies.²⁸⁵

News of this terrible defeat caused panic in Rome, resulting in the election of a dictator – Quintus Fabius Maximus. His plans for the war changed the usual way of how the Romans faced their enemies: the Romans moved to a war of attrition.

Although we cannot know how many soldiers were killed in other conflicts in Spain or in the minor battles in Italy, we may estimate Roman losses in 217 at more than 20,000 dead while, regarding the

²⁸⁵ Livy, XXII. 7; Polybius, III. 84-85

allies, we don't have enough information other than the losses of 13,400 at Trasimene; for the rest of the year they are not mentioned by the sources.²⁸⁶

- Cannae (August 216)

Fabius' strategy failed to impress the Senate and the senators decided not to renew his dictatorial powers at the end of his term. In 216, after the elections, Gaius Terentius Varro and Aemilius Paullus were placed in command of a newly raised army, and directed to engage Hannibal: the result was Cannae.

Livy and Polybius are our main sources for this battle. On numbers, Livy writes, 'there was also a substantial increase in military personnel, but such are the discrepancies in the sources regarding numbers and kind of troops involved that I would not venture to give precise information on the size of the additions to infantry and cavalry forces'.²⁸⁷ According to his description, each legion was increased by 1,000 infantrymen and 100 cavalymen for a total of 5,300 men for each legion while the allies contributed with the same number of men and double of cavalymen for a total of 5,600 men for each *ala*. Furthermore, some of Livy's sources reported a supplementary force of 10,000 men while others that four more legions were formed. Livy's account suggests different possibilities for the total of the Roman forces at Cannae: first, four enhanced legions of 5,300 men each (tot: 21,200) plus four *alae* of 5,600 men (tot: 22,400) for a total of 43,600 men that became 53,600 with the 10,000 supplement.²⁸⁸ Secondly, a force of eight legions for a total of 87,200 men divided between 42,400 Romans (5,300 men in eight legions) and 44,800 *socii* (5,600 men per *ala*).²⁸⁹

Polybius doesn't give the same detailed description of the formation of this army, but mentions that the Romans, for the first time, deployed eight legions of 5,300 men instead of the usual four and that, on this occasion, the number of Romans and allies was the same. In total, Polybius says that at Cannae the Roman army counted 86,000 men (although the actual count of eight legions of 5,300 men – 10,600 men with Romans and Italians – would be of 84,800 men).²⁹⁰

²⁸⁶ 15,000 Romans were killed at the Trasimene. Minor engagements in Campania caused more than 5,000 dead between Romans and allies: Livy, XXII. 15-16 and XXII. 24. There are no information regarding the losses in Spain during the successful campaign of 217, but these were smaller battles.

²⁸⁷ Livy, XXII. 36

²⁸⁸ Livy, XXII. 36

²⁸⁹ Livy, XXII. 36

²⁹⁰ Polybius III. 107 and 113

Appian, without any description, simply suggests an army of 70,000 foot and 6,000 horse.²⁹¹ He makes no distinction between Romans and allies.

Not only is there confusion about the Roman forces on the field, but on the casualties as well. Hannibal's losses, according to Polybius, were of 5,700 men (4,000 Gauls, 1,500 Spaniards and 200 horsemen)²⁹², while Livy says that, in total, the Carthaginians lost 8,000 men.²⁹³ The Roman losses, on the other hand, are far more complicated: according to Polybius, 70,000 died in battle, 10,000 were taken prisoners and only 3,000 managed to escape.²⁹⁴ Appian suggests that at least 50,000 Romans were killed in few hours while 7,000 were taken prisoners.²⁹⁵ He does not mention the survivors who, by simple calculation, should amount to 19,000.

Finally, we have Livy. His description of the Roman losses is rather more complicated than that of Polybius and Appian, especially regarding prisoners and survivors. At the end of the battle, the total number of dead was of 48,200 men while 4,500 were captured during the battle and 2,000 more who tried to escape unsuccessfully to the village of Cannae. Among the survivors of the battle, 10,000 managed to flee to Canusium while 17,000 were trapped in the two camps (7,000 in the smaller, 10,000 in the larger camp) and only 4,500 of these managed to escape to Venusia before the Carthaginians forced both camps to surrender. So, the total number of prisoners taken during and after the battle is 19,000 while the survivors, between those who fled to Canusium those in Venusia, are 14,550.²⁹⁶

Livy's figures are preferable to those of Polybius, especially because, after the disaster, two legions of both Romans and allies were formed with the survivors of Cannae, the *legiones Cannenses*.²⁹⁷ The sum of Livy's casualties, prisoners and survivors amounts to an army of 82,000 men. We might suggest that Livy simply accepted Polybius' numbers without saying it; after all, he gave different possibilities for the strength of the Roman army at Cannae, but does not say which one was correct. Finally, we should

²⁹¹ Appian, VII, 3. 17

²⁹² Polybius, III. 117

²⁹³ Livy, XXII. 52

²⁹⁴ Polybius, III. 117

²⁹⁵ Appian, VII. 4, 25

²⁹⁶ Livy, XXII. 49-54

²⁹⁷ These legions were assigned to Sicily for the rest of the war as punishment for fleeing from the battlefield, described as a disgrace. From time to time, however, they received reinforcements from other troops in disgrace.

remember that Polybius was one of Livy’s main sources, especially regarding military matters. The first table shows the strength of the army deployed by Rome at Cannae according to the different sources.

SOURCE	LEGIONS	ROMANS	ALLIES	TOTAL
Livy	4	21,200	22,400	43,600
Livy	4 + supplement	31,200	22,400	53,600
Livy	8	42,400	44,800	87,200
Polybius	8	42,400	42,400	84,800
Appian	//	//	//	76,000

The following table, on the other hand, shows the different losses reported by our main sources.

SOURCE	DEAD	PRISONERS	SURVIVORS	TOTAL
Livy	48,200	19,000	14,550	81,750
Appian	50,000	7,000	19,000	76,000
Polybius	70,000	10,000	3,000	83,000

These numbers have been subject to discussion: while Goldsworthy and O’Connell claim that the Romans deployed eight legions for a total of 86,000 men²⁹⁸, De Sanctis and Brunt accept Livy’s lower figures and propose a total force between 45,000 and 50,000 men and deny the eight legions army.²⁹⁹

De Sanctis suggests that one of the main reasons of confusion is a simple, yet important, mistake made by the sources: for Greek writers the word *stratopeda* – legion – meant a force of Roman citizens. This force, however, did not include the allied contingent, as this formed another *stratopeda*, making a legion formed by two “Greek legions”, one of Romans and one of allies.³⁰⁰ So it is possible that the eight legions at Cannae were actually four legions and Polybius, by using Greco-Carthaginian sources instead of Roman ones, made the mistake of counting the four legions and four *alae* separately.³⁰¹

A second problem highlighted by De Sanctis in understanding the figures given by our sources is the exaggerated ratio between cavalry and infantry. In his view, 6,000 cavalymen suggested by Polybius at Cannae is actually closer to the strength of the cavalry contingent of four legions, thus he believes that

²⁹⁸ Adrian Goldsworthy, *The Punic Wars* (London, 2001), 200; Robert O’Connell, *The Ghosts of Cannae* (New York, 2010), 148

²⁹⁹ Gaetano De Sanctis, *Storia dei Romani* vol. III 2, 128; Brunt, *Italian Manpower*, 419

³⁰⁰ De Sanctis, *Storia dei Romani* vol. III 2, 112

³⁰¹ De Sanctis, *Storia dei Romani* vol. III 2, 127

the cavalry deployed actually suggested that the number of legions was not eight.³⁰² It is true that an eight legions army should have had a stronger cavalry contingent that, in Polybian numbers, would amount to 9,600 cavalymen in total (1,200 between Romans and *socii* per legion), but he also says that, for this occasion, the numbers of Romans and allies were the same – making the cavalry contingents of the allies weaker than usual (300 instead of 900).

Regarding the cavalry, the other sources are not very different from Polybius and they do not support De Sanctis' argument: Appian's vague figures actually confirm the 6,000 men while Livy, on the other hand, says that the allies had double cavalry at Cannae (so 600) moving their contingent from 2,400 – if four legions – to 4,800 men – if eight legions. Adding the Roman cavalry (300 men per legion for a total from 1,200 for four legions to 2,400 for eight legions), the total strength is from 3,600 to 7,200, showing that, in any case, there was a high ratio of infantry to cavalry as was normal in the Roman army, making both De Sanctis' arguments rather weak.

The key factor in establishing the size of the Roman forces at Cannae is the number of casualties. Both Livy and Appian are very similar in their figures for the total number of dead (48,000 and 50,000) and one may assume that Appian is rounding the same figure that Livy has. Appian may, of course, be dependent on Livy and so we cannot treat Appian's figure as corroborating the Livian figure. Polybius' figures clearly derive from his calculation as to the initial size of the army.

Appian's number of prisoners (7,000) is very close to Polybius' while Livy, on the other hand, suggests a total of 19,000 prisoners and it is possible that these numbers are to be preferred over the others because Livy's account is the most detailed. Livy's account not only describes how many soldiers were captured, but also when and where, showing that he had sources other than Polybius which allowed such levels of precision.³⁰³

³⁰² De Sanctis, *Storia dei Romani*, vol. III 2, 127; according to Polybius, VI. 20 and 26 each legion was supported by 300 Roman cavalry and 900 allied cavalry for a total of 1,200 per legion. Thus, four legions would have been reinforced by 4,800 Roman and allied cavalymen.

³⁰³ Regarding the prisoners' number at Cannae see Livy, XXII. 49: 4,500 were captured during the battle, 2,000 escaped into the village of Cannae, but were captured soon after. Also, a total of 17,000 men escaped to the camps, but only part of them – 6,400 in the small one and 5,800 in the large one – remained and was later captured, while the rest (600 from the small camp, see Livy, XXII. 50, and 4,200 from the large camp, see Livy, XXII. 52) managed to escape to Canusium.

Finally, regarding the survivors, the key element is the later formation of the *legiones cannenses*. Livy, once again, is the most persuasive: he suggests that 14,550 soldiers between Romans and Italians managed to escape and they were later regrouped in two legions. This is plausible even if it shows that these legions were weaker than usual: the normal manpower of two legions was of 19,200 men (divided between 9,000 Romans and 10,200 *socii*)³⁰⁴ while, in this case, these “special” legions were formed by just 7,200 men between Romans and allies each. Appian’s number of survivors, although similar (19,000), may have been calculated on the basis of the assumed strength of the *legiones cannenses* while Polybius’ numbers are clearly too low – 3,000 survivors are enough for one weakened legion.³⁰⁵

So, by combining Livy’s figures for the losses, we have 48,000 dead, around 19,000 prisoners and 14,500 survivors for a total of 81,500 men under arms. Hannibal, after the battle, freed all the Italians allowing them to go home thus probably changing the total number of prisoners.³⁰⁶ Livy, XXII. 49 says that casualties among Romans and *socii* were roughly the same, so we might estimate that, from the total of 48,000 dead, 24,000 were Romans and 24,000 Italians. Of the prisoners, the only available solution to us is to divide the 19,000; it is possible that more Romans were captured (so perhaps 10,000) while the remaining 9,000 allies were later freed by Hannibal. This meant that Rome lost 34,000 dead and prisoners and the Italians 24,000 dead.³⁰⁷

Cannae was not the only disaster that struck the Romans in 216. Later in the year, a force of two legions plus a strong contingent of allies – that probably numbered 11,800 men (two stronger Polybian *alae sociorum*) – was ambushed and completely destroyed in the Litana forest in Cisalpine Gaul by a force of Boii; according to Livy, only 10 men managed to escape.³⁰⁸ This brought Roman losses in Italy in 216 to 43,000 (between dead and prisoners – and we have no information regarding the losses in Spain).

³⁰⁴ Polybius, VI. 20 and 26

³⁰⁵ We have to consider that, according to Appian, Roman legions during the Second Punic War were already 5,300 men strong and suggests a parity between Romans and allies – so one legion counted 10,600 men. For this reason, two legions were formed by 21,200 men and the number of survivors of Cannae – 19,000 – is close to two, not very much, weakened legions, but still too strong, also because legions with such manpower started to be deployed from the late 180s.

³⁰⁶ Regarding the Italian prisoners, see Livy, XXII. 58

³⁰⁷ Regarding the number of dead at Cannae, Livy, XXII. 49 says that casualties among Romans and *socii* were roughly the same, so we can say that, from the total of 48,000 dead, 24,000 were Romans and 24,000 Italians. On the prisoners, the best solution is a total of 19,000; it is possible that more Romans were captured (so 10,000) while the remaining 9,000 allies were later freed by Hannibal.

³⁰⁸ Livy, XXIII. 24

If to the forces that we have proposed for Cannae (42,400 citizens) we add those in service at the same moment in Spain (12,600 Romans) and on other fronts (two legions in Cisalpine Gaul, two in Sicily and one in Sardinia for a total of 22,500 citizen), the total count of the Roman citizens in the army increases to 77,500 in sixteen legions, certainly a high number, but not one which we can exclude *a priori* – after all, Polybius’ list of 225 suggested that 52,500 citizens were under arms.³⁰⁹

After Cannae, the Romans reorganized their forces in order to keep fighting against Carthage. Although Livy does not give a precise list and number of the legions in service, he actually describes all the movements of troops which would allow us to reconstruct a list of legions in service. Including the forces scraped from the *volones* – enfranchised slaves, convicts and debtors – and the troops in Spain, there were fifteen legions for a total of 63,800 men.³¹⁰

- Spanish front part 1 (218-215)

The same winter when the Roman army was crushed at the battle of the Trebia, the war also started in Spain, the other major theatre of operations. While Hannibal was moving from Northern to Central Italy after the battle of the Trebia, the army under the command of Gnaeus Cornelius Scipio disembarked in the city of Emporiae – an old Greek colony founded by Massalia – in Northern Spain. According to Livy his army was composed by two legions of 8,600 Romans and 15,600 allies, but he also tells us that he signed treaties with some local populations and recruited them into his auxiliary units.³¹¹

The following year (217), encouraged by Scipio’s successes³¹², the senate decided to send reinforcements: thirty warships and 8,000 men arrived in Spain – although it is not clear how many

³⁰⁹ Polybius, II. 24

³¹⁰ On the *volones*, see Livy, XXII. 57 and XXIII. 14. Regarding the movement of troops after Cannae, see Livy XXIII. 31-32: two urban legions in Rome were moved to Cales and then to Suessula in order to protect Nola, the two legions of the survivors of Cannae were moved to Sicily while the troops there (2 legions) were moved back to Rome and from there they were ordered to move to Apulia. Regarding this region, Livy, XXIII. 22 suggests that there were Roman troops after Cannae under the consul Gaius Terentius, and, when he left, the praetor Valerius took command of these troops (XXIII. 32). Livy also mentions the *volones* and that a legion was stationed in Sardinia. Shortly before, Livy (XXIII. 14) says that the praetor Marcus Claudius Marcellus was in Casilinum, just north of Capua, with his army – so probably 2 legions – and, finally, we know that three legions were in Spain at the time – the two sent in 218 and the reinforcements, probably a single legion, of 217 (Livy, XXII. 22).

³¹¹ Livy, XXI. 17 and XXI. 60

³¹² In 218 in Spain: defeat of Hanno (Livy, XI. 60), the victory against the Lacetani (Livy, XI. 61) and the naval battle of Onussa (Livy, XXII. 20) although this battle is not widely believed because it is not mentioned by Polybius.

Romans and how many allies were part of this force, but probably this was one legion plus *socii* – under the command of Publius Scipio who joined his brother Gnaeus.³¹³ They had a simple strategy: take the offensive to prevent Hannibal receiving troops, supplies or money from Spain. So, by the year 216, three legions of Romans and *socii* operated in Spain for a total of 32,200 men, and we can estimate the numbers of Romans at 12,600 and the Italian allies at 19,600.

After the first successes, the war in Spain proceeded slowly until, in early 215, Hasdrubal received orders to make preparations in order to join Hannibal in Italy.³¹⁴ The Romans managed to intercept his forces near the town of Hiberia: Livy says both armies were equivalent in strength – so we can assume that both counted around 30,000 men – and that the battle was fought in a way similar to Cannae, but, at the end, the Romans were victorious, and avoided a new invasion of Italy.³¹⁵

We have no data on the losses in Spain for the period 218-215. Up until Hiberia (early 215), battles on the Spanish front were neither frequent nor big. We might suppose that, maybe, up until that encounter, losses were a little more than 2,000 men between Romans and allies (so, maybe, around 1,000 citizens). After the battle, Livy says that losses were heavy, but he doesn't mention for whom – Romans, allies or Carthaginians – so, maybe, 1,000 more citizens were lost making the total of around 2,000, but this is entirely speculative.

- The Aftermath of Cannae

Cannae led to a massive revolt of the Italian communities against Rome:³¹⁶ cities in Apulia, Samnites communities, the Lucanians, the Brutii and Greek cities in Magna Graecia – Tarentum in particular – progressively joined Hannibal over the following years. The greatest achievement of the Carthaginians, however, was the defection of Capua and other Campanian cities.³¹⁷ As a result, the number of allies available was reduced, further weakening the armies of the Republic.

³¹³ Livy, XXII. 22

³¹⁴ Livy, XXIII. 27

³¹⁵ We know that the Romans, by 216, had 32,200 men in Spain and Livy, XXIII. 29 describes the forces at Hiberia: “In numbers or quality of men, one side was not in the slightest superior to the other...”

³¹⁶ Livy, XXII. 61

³¹⁷ See Michael Fronda, *Between Rome and Carthage. Southern Italy during the Second Punic War* (Cambridge, 2010), 146-147 on how local rivalries in Campania undermined Hannibal's effort in the region.

Secondary sources, Brunt in particular, suggest that the legions from this moment until the end of the war were under strength, a process that started already from the second part of 216 – the post-Cannae legions: the number of citizens started to decrease, and instead of the standard 4,500 men, Brunt estimates that each of the legions in service counted 4,100 men, and that, from that moment, the number of troops continued to decrease. This was not caused by the lack of soldiers to recruit, according to Brunt, but it was a strategic decision made by the Romans:

‘For the rest of the war most of the legions must have been at most 4,500 strong and often much weaker. [...] In Italy Roman strategy required a multiplicity of forces rather than large armies that could risk another battle with Hannibal. Some legions distant from the main theatre of operations (in Gaul, Picenum or Etruria) can have been no more than garrisons and were probably not reinforced to compensate for wastage’.³¹⁸

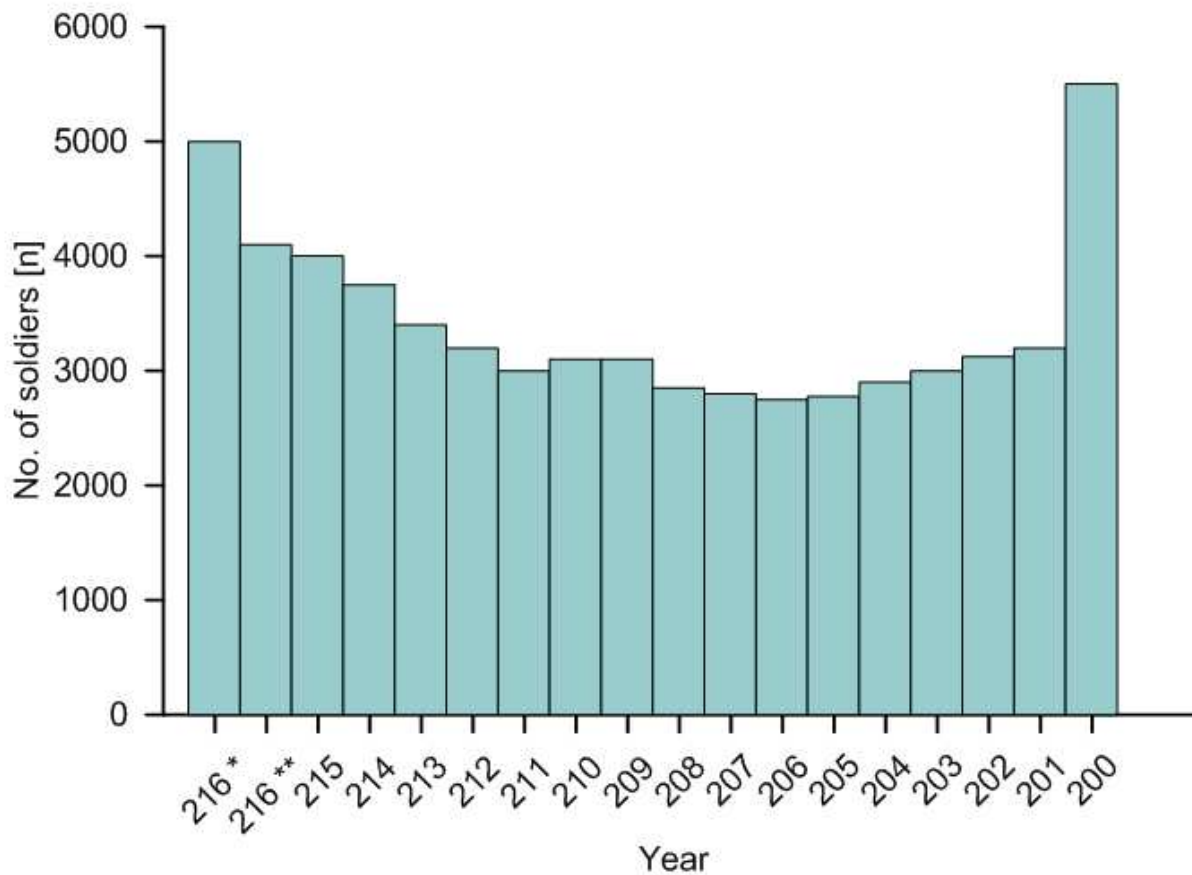
There is no evidence for smaller legions in the sources, while, on the contrary, there is evidence for larger legions, although they were deployed only by the end of the war.³¹⁹ Other sources on the strength of the individual legions are scarce, but, in general, it seems that legions increased their manpower rather than decreased it.³²⁰ Nevertheless, it is possible that weaker legions were in service, especially in the period after Cannae.

The following graphics shows the variations of Roman citizens in the legions estimated by Brunt from 216 (before Cannae, “216*”, and after Cannae, “216**”, in the graph) to 200:

³¹⁸ Brunt, *Italian Manpower*, 420

³¹⁹ Livy, XXIX. 25 describes Scipio’s army for his African campaign (204), and is the first instance that legions stronger than usual are mentioned during the Second Punic War.

³²⁰ The most basic information is Polybius, VI. 20 who says that standard Roman legions of 4,500 men could increase their manpower to 5,300 men in case of emergency. After the Second Punic War, see Livy, XL. 36 regarding the increase of citizens in the legions during the 180s, and Livy, XLII, 31 for the legions of the Third Macedonian War. In all these cases, legions increased their manpower.



We can see that Brunt suggests that legions in service before Cannae were 5,000 men strong, but that same year, after the battle, the number of citizens in service decreased to 4,100 per legion.³²¹ This negative trend continued for the rest of the war until it reached the lowest point by 206 when, according to Brunt, each of the twenty legions in service counted only 2,750 Roman citizens, a massive drop from the standard Polybian number (4,500 men per legion). From this point, the number of Roman soldiers in the legions start slowly to grow again (2,900 citizens per legion in 204), but never reached their supposed standard number for the rest of the war. Brunt suggests that in 200, right after the war, Roman legions increased their standard manpower to 5,500. Nevertheless, we have examples that allow us to question the Brunt model. In 216, contrary to his suggestion of 5,000 men per legions, it is plausible that, with the exception of the legions deployed at Cannae, the rest of the army was made by normal legions of 4,500 men, while those in Spain were even weaker (they originally counted 12,600 citizens, so 4,200 each).

³²¹ See Brunt, *Italian Manpower*, 418

Also, in 210, while he is suggesting that each legion counted 3,100 men, Livy mentions legions that, after discharging veterans, had 5,300 Romans and 7,300 allies.³²²

It appears, then, that there is no clear answer on this matter. Weaker legions might be a possibility if we consider the combination between heavy losses, the defections of important allied communities, but also the fact that Rome was aware that some fronts were more important than others. Of course, there is no way to know any variation to the actual strength of the legions, since the only source that actually mention the strength of the legions is Livy on the occasion of Scipio’s campaign in Africa. A possibility is that the consular legions, as they were the most important and deployed on the main fronts, were kept at standard strength (so between 4,500 and 5,300 citizens plus the allies), while the others, especially those assigned to less important fronts, might had less men or did not receive reinforcements for long periods of time (the Spanish legions were largely isolated from Rome from 216 to 210-209).

The *socii* were also likely understrength. Their military resources were not endless, as the case of the twelve colonies – discussed later – showed. We must assume that the defection of the Southern Italian communities crippled recruitment.³²³

The following table summarizes the number of legions, Roman citizens and Italian allies in service per year from 218 to 216:

YEAR	LEGIONS IN SERVICE	ROMANS IN SERVICE	<i>SOCII</i> IN SERVICE
218	7 (6+1)	30,300	49,500
217	11	49,500	56,100
216 – before Cannae	16	77,500	91,500
216 – after Cannae	15	63,800	76,500

From this table we can clearly see the progressive intensification of military activity. Regarding the total number of citizens in service in 216, with the exception of the three legions in service in Spain (see the Spanish section above), and those at Cannae (which were stronger), all the others are estimated to have

³²² Livy, XXVI. 28: “Orders were given for the army made up of citizens and allies to be reduced in numbers, with a single legion of 5,000 infantry and 300 cavalry formed from the two then in operation, and the men with the longest service records being discharged. In the case of the allies, too, only 7,000 infantry and 300 cavalry were to remain operative...”

³²³ Polybius, VI. 26

been standard Polybian legions of 4,500 Roman citizens. Polybian figures are also employed for the number of *socii* (5,100 per *ala*) which are estimated to be a little weaker in Spain, stronger at Cannae and in the Litana forest, normal in the other legions. These figures are also employed on the forces in service in 216 after Cannae, including the two legions of *volones*.

The next table shows the proportion of citizens recruited in the army compared with the total number of male citizens (starting from the 219 census figure), the casualties among Roman citizens and the plausible casualties of the *socii*.

Year	Census Figure	% of citizens in service (against census figures)	Casualties (dead + prisoners) (citizens)	Casualties (dead + prisoners) (<i>socii</i>)
218	270,000 citizens (219)	11%	14,000 (Ticinus, Trebia)	16,000
217	256,000 (270,000 – 14,000 losses)	19%	18,000 (Lake Trasimene) ³²⁴	13,400
216	238,000 (256,000 – 18,000 losses)	37.5%	34,000 (Cannae) ³²⁵	24,000
216 (after Cannae)	204,000 (238,000 – 34,000 losses)	27.5%	9,000 (Litana forest)	11,800
216 (after Litana)	195,000 (204,000 – 9,000 losses)	32%	//	//

In order to estimate a census figure for the years after 219, we have to consider the following issues:

- i) War losses: since the beginning of the war, roughly around 75,000 Roman citizens were lost in combat between dead and prisoners.³²⁶ We can only have estimates regarding the allies, and they suggest that their losses were equally severe.

³²⁴ On the losses of the battle of Lake Trasimene see Livy, XXII. 7: he states that 15,000 Romans were killed while 10,000 soldiers were captured (between citizens and allies). Flaminius' army counted four (Polybian) legions for a total of 18,000 Romans and 20,400 *socii*; if 15,000 citizens were killed and, between Romans and *socii*, 10,000 men were captured, it means that the remaining 3,000 citizens were among the prisoners while the rest of the casualties are those of the allies: 13,400 dead and 7,000 prisoners – who were freed by Hannibal so they can be counted as survivors.

³²⁵ Livy, XXII. 49 says that casualties among Romans and *socii* at Cannae were roughly the same, so, from the 48,000 dead and 19,000 prisoners, we can simply say that 24,000 citizens were killed and 10,000 captured while the losses of the *socii* were of 24,000 dead and 9,000 prisoners later freed by Hannibal. Finally, two legions and, as suggested by Livy, stronger contingents of allies were destroyed in the Litana forest for a total of 9,000 Romans and 11,800 *socii*.

³²⁶ Up until 216, Roman – only – casualties were: 14,000 in 218, 18,000 at Trasimene (dead and prisoners), probably 34,000 at Cannae (dead and prisoners) and 9,000 in the Litana forest.

- ii) We know nothing regarding the injured – though those who survived injury and capture might have been few.
- iii) Defections of the allies: Livy, XXIII, 5 reports that 34,000 Campanians were available for service in 216 when they joined Hannibal’s cause. They are important and must be considered as “additional losses” since Campanians were included in the census figure (see Polybius II, 24)
- iv) Livy, XXII, 57 says that 17,000 younger men (“17 or over”) were recruited. Are they included in the census figures? According to Polybius, 17 was the minimum age for eligibility in the army, but 20 may have been more of a norm for the commencing of military service. We might expect that such youths were underrepresented in the census of 219. If Livy is right, 3 more age cohorts were made available in the crisis.
- v) New *iuniores*: every year since 219, while many citizens were killed or captured in battle, others reached the requirements – age, property, etc...– to be included in the census figures as *iuniores*, thus becoming available for military service. By 216, between war losses and defections, the total number of citizens lost was 109,000, however, every year new Roman males turned 17 and entered into the census figures.³²⁷ The relation between natural growth and war losses is a central topic in the studies of Roman demography. We don’t have enough data in order to estimate a precise natural growth rate – that probably changed every year –, but it has been proposed that there was a high fertility among Roman women.³²⁸
- vi) Normal death rates: the normal shedding of population through disease did not stop simply because so many were being killed on the field of battle
- vii) The *volones*: those serving with the *volones* were from the least privileged and most marginal in Roman society. It seems quite possible that many of these men did not register in the census.

³²⁷ Roman losses only: 14,000 in 218, 18,000 in 217, 34,000 at Cannae and 9,000 at the Litana Forest. Also, Livy, XXIII, 5 mentions the defection of 34,000 Campanians who joined Hannibal’ side. Model life tables based on material from Roman Egypt have suggested that life expectancy at birth was 25, and that mortality strongly decreased after infancy. Saskia Hin, *The Demography of Roman Italy*, (Cambridge, 2013), 108 has suggested that life expectancy in Roman Italy was several years higher because of the very different geography compared to the harsher ecological environment of the Fayum region, making the life expectancy at birth in Italy probably around 30. Combining a higher life expectancy at birth, lower mortality after infancy and a high fertility rate, it is possible to suggest that Rome had a moderate growing population for a pre-industrial society.

³²⁸ Saskia Hin, *The Demography of Roman Italy*, 198 and Luuk De Ligt, ‘Poverty and Demography: the Case of the Gracchan Land Reforms’, in *Mnemosyne series 4*, vol.57 (2004), 749

Allowing for the enormous uncertainties, I think it is possible trying to make a hypothetical census for the year 216: if we start from the 270,000 citizens registered for the census of 219, then removing the war losses and the defections of the years 218 and 216, we have a population of 161,000 male citizens.

The recruitment of the two *volones* legions composed by emancipated slaves and debtors might suggest that Rome was facing a manpower crisis; Livy suggests that the *volones* were recruited because there was a shortage of free men.³²⁹ Rosenstein, however, claims that there was no scarcity of *assidui* or citizens:

“Rome still had far more potential recruits to draw on than did Hannibal, a large and relatively prosperous citizenry whose wealth it could tap, and many years of practical experience in raising, training, and supplying armies [...]. It was not a shortage of *assidui* that compelled recourse to these sorts of men, but rather the urgency of the situation.”³³⁰

It is undeniable that Rome needed soldiers fast; as we will see in the next chapter, Livy suggests that the regular *dilectus* was a slow process.³³¹ Slaves, debtors and criminals formed an easily accessible manpower. Also, it was almost planting season, and men would have been reluctant to leave their farms. The period immediately after Cannae was critical because there was the fear of an attack against Rome, so soldiers were needed as quickly as possible, hence the recruitment of the *volones*. If after Cannae there was an actual dramatic shortage of regular manpower, the Romans would have probably formed more legions of *volones*.

The recruitment of slaves, criminals, etc, happened only once during the war, and after they were lost in 212, new legions of *volones* were not raised, even though the military requirement on the population in those years reached its peak. It seems likely that Rosenstein is right and that there was manpower available.

³²⁹ Livy, XXII. 57: “There was also a novel form of recruitment occasioned by the shortage of free men, and by the crisis: they bought and armed, at state expense, 8,000 sturdy young men from the slave population...”

³³⁰ Nathan Rosenstein, *Rome and the Mediterranean, the Imperial Republic* (Edinburgh, 2012), 149

³³¹ As suggested by Polybius VI. 20-21, the necessity of gather in Rome all the citizens recruited and wait for the arrival of the allied contingents surely required time. Livy, XLIII. 15 states that the levy of 169 took two weeks, and that was considered faster than usual.

We also have to consider Cannae's impact on the *socii* and their role. After the battle, the Republic was forced to impose on its remaining allies burdens heavier than usual and it is clear that this policy of increasing demands on the allies was dangerous since it could incite further defections: after 212 an army had to be stationed in Etruria, not really to defend the area from attacks, but to prevent any rebellions.³³² In a meeting between the senate and the representative of the Latin colonies though, the Latins supposedly not only claimed that their men could meet their obligations, but that they were ready to provide even more if needed.³³³

In order to understand how losses and defections altered the manpower resources of the allies, we have to look back at Polybius' list of 225. It tells us that, between men under arms and those available for service, the allied communities could furnish 463,000 men. Between 218 and 216, 65,200 *socii* were killed in the war, and at least 16,000 were the prisoners freed by Hannibal.³³⁴ Rome lost part of Samnium and Apulia, all of Lucania and Bruttium. A total of 133,000 men became unavailable for service in the Roman army (33% of the 397,800 available after the losses of 218-216).³³⁵ We do not know whether soldiers from the allied communities now in revolt who were serving in 216 in Spain, Sicily, Sardinia or Northern Italy became problematic.³³⁶

- The climax of the Italian war: from the aftermath of Cannae to Capua (215-211)

Rome, between 215 and 211 strongly increased its military effort by recruiting new legions every year. After Cannae the main war front was Campania: in 215 the Romans managed to defend successfully

³³² Livy, XXVIII. 10

³³³ Livy, XXVII. 10

³³⁴ Losses of the *socii*: 16,000 in 218, 13,400 in 217, 35,800 in 216. We know that 7,000 were freed by Hannibal after the battle of Trasimene and at least 9,000 after Cannae.

³³⁵ Plausible numbers of *socii* who joined Hannibal: part of Samnium, not all of it, defected, and with it probably 40,000 of its 77,000 men from Polybius' list. The same for Apulia: not all of it defected so, from its original 66,000 men, probably 30,000 became unavailable to Rome. Lucanians and Bruttii were those who defected the most, so probably all their manpower (33,000 Polybian Lucanians, and probably around 30,000 Bruttii) did the same. Tarentum did not offer important or relevant numbers.

³³⁶ Roman strategy after 216 was also focused on preventing more rebellions plus the ability of deploying multiple armies provided the means to prevent or suppress any defection. See Martin Frederiksen, *Campania* (London, 1984), 241; he highlights the case of Nola, city of strategic importance for the control of eastern Campania that played an important role during the operation in the aftermath of Cannae. On the operations in Campania: Livy, XXIII. 14-15: after his failure at Neapolis, Hannibal focused his attention to the conquest of Nola, whose internal situation was similar to that of Capua with the population favourable to join his cause. The senators of the city, however, sent a request of help to praetor Marcus Claudius Marcellus who rapidly got hold of the city in order to avoid any defection. After three years of fighting and three defeats – Livy, XXIII. 16: first battle of Nola (216); Livy, XXIII. 44-46: second battle of Nola (215); Livy, XXIV. 17: third and final battle of Nola (214) – Hannibal decided to abandon the conquest of Nola and moved to Tarentum.

Nola for the second time against Hannibal.³³⁷ That same year, however, the famous treaty between Hannibal and Philip V of Macedonia was signed. Livy's chronicle regarding the number of legions in service is not very clear: he mentions numerous movements of troops which suggests a total of fifteen legions.³³⁸ Livy reports that the senate decided to hold double taxation that year, so that the income from the first taxation would have been used to pay the soldiers – with the exception of the *legiones cannenses*.³³⁹

The following year (214) six new legions were recruited. Livy gives us a detailed description of the disposition of the troops: the two consuls received two legions each, two legions were assigned to Gaul (Northern Italy), Sicily, Sardinia and Apulia, while Gracchus continued his command of the two *volones* legions. One legion was stationed in Picenum, and another one was sent to Brundisium, and finally, two more legions remained in Rome as reserve.³⁴⁰ Livy omits the three Spanish legions; with their inclusion, the total number of legions in service in 214 was twenty-one.

This was a positive year for Rome on the Italian front: at the River Calor, in Campania, a Carthaginian army with a strong contingent of Brutii and Lucanians was destroyed.³⁴¹ Also, for the third time, Hannibal was defeated outside Nola.³⁴² Finally, in 214, the Romans began the siege of Syracuse that occupied their forces in Sicily for two years, and moved one legion in Greece to support their allies against the Macedonians.

Livy's list of legion of 213 is incomplete; he mentions that two new legions were recruited while the rest of the army was the same as the previous year for a total of twenty-three. Four legions were assigned to the consuls, two in Apulia, Gaul, Campania and Sardinia, one was stationed in Picenum, and one more in the east for the operations against Macedonia. Sicily was assigned to Marcellus who continued his command. Finally, we have to add the two *volones* legions, and the three in Spain.³⁴³

³³⁷ Livy, XXIII. 16

³³⁸ Livy, XXIII. 31-32 on the army of 215: six legions (the *volones* were among these) were deployed in Campania, two in Apulia and Sardinia, the two *legiones cannenses* were moved to Sicily, and finally there were the three Spanish legions.

³³⁹ Livy, XXIII. 31: "The senate decreed double taxation for that year, with the regular taxes levied immediately so that from them a cash payment could be made to all soldiers, apart from those who had served at Cannae."

³⁴⁰ Livy, XXIV. 11

³⁴¹ Livy, XXIV. 15-16: the Carthaginian army, between Brutti, Lucanian, Numidians and Moors, counted 18,200 men; at the end of the battle only 2,000, mainly cavalrymen, managed to survive.

³⁴² Livy, XXIV. 17

³⁴³ Livy, XXIV. 44

In 212 the war in Italy reached its peak. Livy reports that four legions were assigned to the consuls, two legions were in Apulia, one in Picenum, two in Etruria, two in Lucania (although he doesn't say it, he is talking about the two *volones* legions, so he is not omitting them on this occasion), two in Gaul, probably four in Sicily, one in Greece, two in Sardinia, the Spanish legions and, finally, two new urban legions.³⁴⁴ In total in 212 the Roman army had twenty-five legions in service.

Additionally, we have to consider the fleet. The standard battle-ship of the Roman Navy during the Punic War era was the *quinquereme*. It had a crew of 364 men –296 rowers plus 68 crewmembers (divided between officers, sailors and marines) – and could also transport a century of 80 soldiers.³⁴⁵ According to Livy, in 218, at the beginning of the war, the Roman fleet counted 220 *quinqueremes* in service for a total of 15,000 crewmembers (rowers excluded).³⁴⁶ Usually crews for the fleet were provided by the allies, but it is possible that after the defections of 216 of the Southern Italians, Rome started to recruit its own citizens for the fleet as well – although most of the crews were still composed by *socii*.³⁴⁷ We know that in 218, when the war started, there were two-hundred and forty ships in service (divided between two-hundred and twenty *quinqueremes* and twenty cutters), we might suggest that by 212, when the war reached its peak, the naval effort was increased, but, in terms of crewmembers, it is plausible that the majority of them were still composed by allies, although Roman personnel was increasing – so we might suggest that 1/4 or 1/2 of the crews were citizens.

In total in 212 the Roman army had twenty-five legions in service. In standard Polybian numbers (so legions of 4,500 Romans), it would mean 112,500 Roman citizens under arms, but we know that both the Spanish legions and the *legiones cannenses* (five legions in total) were not at full strength, the two legions of *volones* counted 8,000 men (instead of 9,000 like two full strength legions). With these considerations, we can slightly reduce the number of citizens in service to 108,800.

Not having a census figure during this period makes it difficult to understand the burden on the Roman population. We can try to use the figure of 207, the closest official census. In this occasion, Livy reports

³⁴⁴ Livy, XXV. 3: we might suppose that the two legions in Lucania are the *volones* because they were under the command of Tiberius Gracchus who kept his command there. It is possible that there were four legions (divided between two regular ones and the two *legiones cannenses*) in Sicily because the command of both Publius Lentulus and Marcellus was extended

³⁴⁵ Pitassi, *Roman Warships*, 100

³⁴⁶ Livy, XXI. 17

³⁴⁷ Polybius VI. 19 suggests that naval service was reserved for citizens with the lowest census requirement – 400 drachmae. Also see Brunt, *Italian Manpower*, 65

a total of 177,000 citizens, but, as we will argue later, we should increase this figure because many legions were stationed outside peninsular Italy. The next census figure is the one of 204 which includes the soldiers in service overseas. On this occasion Livy reports a total of 214,000 citizens. Of course, in 212 the number of citizens was not the same as 204, but this figure would give us a better understanding of the massive military effort undertaken by the Roman Republic. If 108,800 citizens were in service in the legions, that would mean almost 51% of a population of 214,000; so we can say that, without a doubt, by 212 more than half of the Roman male population was under arms.

Though it appears as an extremely high proportion of the population, we have to consider the fact that some legions might have been weaker than normal – not only when formed, but also due to losses –, just like the *volones* and the *legiones cannenses* were perhaps smaller. Also, the legions in Spain had had few reinforcements or support from Italy. It is possible that some legions stationed on secondary fronts (like Etruria, Gaul and probably Sardinia – though not fully pacified, the main revolts on the island ended in 215³⁴⁸) were used as garrisons with reduced manpower.³⁴⁹ Even if we can slightly reduce it, there is no denial that Roman mobilization by 212 appears to have been extreme.

In 212, the Carthaginians persuaded Tarentum, to join them.³⁵⁰ But Rome captured Syracuse, and in 211, Capua was recaptured by the Romans. Syracuse's capture helped solve the financial difficulties faced by the Republic: due to the deployment of so many legions, Rome's fiscal system was at a critical level.³⁵¹ The capture of Syracuse may have encouraged the reform of the monetary system with the introduction of the silver *denarius*. The following conquest of Capua also contributed to ease financial difficulties, as 2,070 pounds of gold and 31,200 of silver were brought to the treasury.³⁵²

Livy's list of legions of 211 has several omissions, but it seems that there weren't many changes from the previous year, as most of the text is focused on extensions of commands, so we can say that there

³⁴⁸ For Sardinia, Livy, XXIII. 40

³⁴⁹ See Brunt, *Italian Manpower*, 420

³⁵⁰ Appian, VII. 6, 32; Livy, XXV. 7

³⁵¹ Livy, XXIII. 21: in 215 there was no money to pay the soldiers and sailor in Sicily and Sardinia; Livy, XXIV. 11 says that in 214 it was decided that people with property between 50,000 and 100,000 *asses* were required to supply a single sailor and six months of his pay. Anyone above 100,000 and up to 300,000 three sailors and one year of their pay; above 300,000 and up to one million five sailors and above a million seven sailors. Senators, finally, had to supply eight sailors and one year of their pay. Livy XXIV. 18 says that *equites* and centurions even refused to be paid until the end of the war.

³⁵² Livy, XXVI. 14

were still twenty-five legions in service.³⁵³ The Spanish front was destabilized by the defeat of the Upper Baetis – in which both the Scipios were killed –, but the fall of Capua allowed the Romans to send reinforcements to Spain for the first time.³⁵⁴

In 210, twelve of the thirty Latin colonies claimed to have exhausted their military resources.³⁵⁵ This was not a revolt, but shows that military burdens on the allies were heavy, especially on the Latins – who according to Polybius, II. 24 were the most significant suppliers of men.

The military obligations of the Latin colonies were fixed by the *formula togatorum*, but it is possible that they were increased during the war.³⁵⁶ Nevertheless, five years later, when they were forced to furnish even more troops as a punishment, they fulfilled the requirements.³⁵⁷

The following table summarizes the number of legions and Roman citizens in service between the period immediately after Cannae and 211:

YEAR	LEGIONS IN SERVICE	CITIZENS IN SERVICE
216 (after Cannae)	15	63,800
215	15	63,800
214	21	90,800
213	23	99,800
212	25	108,800
211	25	108,800

- Spain part 2: from Hiberia the death of the Scipios to Ilpia (215-207)

The defeat at Hibera forced Carthage to send more troops to Spain.³⁵⁸ The Scipios had probably had to recruit from the Spaniard tribes in order to increase their forces given that reinforcement from Italy was impossible.³⁵⁹ After Hiberia Livy's description of the operations in Spain becomes confused. The Scipios

³⁵³ Livy, XXVI. 1

³⁵⁴ On the defeat of the Upper Baetis, and the death of the Scipios, see Livy, XXV. 36-37, regarding the reinforcements sent from Campania to Spain, see Livy, XXVI. 17

³⁵⁵ Livy, XXVII. 9; also see Broadhead, 'Migration and Hegemony', 465-466

³⁵⁶ From 444,000 *socii* in service or available for service, 287,000 were still available to Rome after the war losses and defections of 218-216, and 85,000 of these were Latins. On the *formula togatorum* see Brunt, *Italian Manpower*, 545-547

³⁵⁷ Livy, XXIX. 15

³⁵⁸ Livy, XXIII. 32

³⁵⁹ Also, scandal involving army contractors for Spain in Livy XXV. 3

campaign south of the Ebro until the capture of Saguntum at the end of 212.³⁶⁰ Then, at the beginning of 211, the Romans recruited 20,000 Celtiberians probably increasing the strength of the army to around 50,000 men.³⁶¹ At the battles of the Upper Baetis, the Romans were defeated and both the Scipios killed.³⁶²

The fall of Capua allowed troops to be moved from Campania: 6,300 Romans and 6,800 *socii* were sent to Spain while the Senate recruited new troops and a commander. Livy states that: ‘after the recovery of Capua, the Senate and people felt as much concerned about Spain as they did about Italy’.³⁶³

By 210, Roman forces in Spain included maybe around 10,000 men of the original 32,000, the 13,100 men from Campania and 11,000 fresh troops for a total of 34,100 men divided between citizens and allies.³⁶⁴ Scipio attacked New Carthage in 209 and the conquest of this important city provided the Romans with a vast booty.³⁶⁵ After the fall of New Carthage, Scipio engaged the enemy on several occasions, until he obtained a decisive victory at Ilpia (206).³⁶⁶ For Ilpia Polybius and Livy nearly agree on the strength of Scipio’s army: Polybius suggests 45,000 infantrymen plus 3,000 cavalry while Livy 45,000 men in total between citizens, *socii* and Spanish auxiliaries.³⁶⁷

- The final decade of the war (210-201)

From a military point of view, the period between 210 and 208 is marked by a stability in the number of legions in service until the events of 207 (Hasdrubal’s invasion) forced one last intensification of military activity. The final years of the war, from 206 to 201, are marked by a decrease in the number of legions in service.

³⁶⁰ Livy, XXIV. 41 suggestion for the 214 campaign; Livy XXIV. 41-42: from the defeat of Castrum, to the victories of Munda and Auringis and the liberation of Saguntum.

³⁶¹ Livy, XXV. 32 on the recruitment of the Celtiberians.

³⁶² On the defeat of the Upper Baetis and the death of the Scipios, see Appian, VI. 3. 16 and Livy, XXV. 33-36

³⁶³ Livy, XXVI. 18

³⁶⁴ Livy, XXVI. 17

³⁶⁵ See Livy, XXVI. 47 on the booty gathered by the Romans at New Carthage.

³⁶⁶ On the siege and conquest of New Carthage see Livy, XXVI. 43-47 and Appian, VI. 4. 20-23. See Livy, XXVII. 18 on the battle of Baecula; Appian, VI. 5. 27 on Scipio’s victory at Carbone, and finally Livy, XXVIII. 12-16 on the battle of Ilpia.

³⁶⁷ Livy, XXVIII. 13; Polybius, XI. 20

There is not much to say regarding the fleet, as we don't have precise information during this period. Livy says that, after raiding the coasts of Africa, the Roman fleet managed to gain total control of the seas after defeating the Carthaginians in the waters of Sicily securing sea routes important for the movement of troops and especially supplies.³⁶⁸ It is possible that, during the war, the Romans tried to maintain at least 200 *quinqueremes* in service for a total of 13,600 crewmembers and we might suggest, as we did before, that 1/2 or 1/4 of these were actually Roman citizens (so between 3,400 and 6,800).

After the fall of Capua, Spain – as we have seen – and Sicily became the two main fronts. At the beginning of 210, Rome deployed an army of twenty-one legions: the new army in Spain was four legions strong, the consuls, with two legions each, were assigned to Sicily (where the two *legiones cannenses* were still serving), and Apulia (together with other two legions). One legion was stationed in Campania, two urban legions raised the previous year were moved to Etruria, and replaced by two newly formed legions left in Rome.³⁶⁹

The fall of Syracuse in 212 did not conclude the war in Sicily.³⁷⁰ Operations continued until 210, when Valerius Laevinus conquered Agrigentum, the last Carthaginian stronghold on the island. This event was followed by the surrender of several other cities.³⁷¹ The pacification of Sicily was followed by its reorganization:

“The consul [Valerius Laevinus] meted out to the leading men of these communities [...], and forced the Sicilians finally to lay down their arms and turn their attention to farming the land. His policy was design not only to make their island sufficiently fertile to support its inhabitants, but also to have it alleviate problems of the grain-supply of the city of Rome and Italy...”³⁷²

In 209 Rome maintained twenty-one legions.³⁷³ The following year (208) there were still twenty-one legions in service, and the *imperium* of most commanders was extended.³⁷⁴ In 207 Rome increased the

³⁶⁸ Livy, XXVII. 4

³⁶⁹ Livy, XXVI. 28 on the legions in service in 210.

³⁷⁰ Livy, XXV. 41

³⁷¹ On the fall of Agrigentum and the end of the campaign in Sicily, see Livy, XXVI. 40: he states that only six cities needed to be captured by the Romans, forty surrendered while twenty were sold to them.

³⁷² Livy, XXVI. 40

³⁷³ Livy, XXVII. 7

³⁷⁴ Livy, XXVII. 22 on the legions in service in 208.

number of legions in service due to the arrival of a new Carthaginian army in Northern Italy. Livy tells us that there were four consular legions, four Spanish legions, two legions in Sicily, Sardinia, Gaul, Etruria, Bruttium and Apulia, while only one was stationed at Capua. Finally, two new urban legions were formed, increasing the total number to twenty-three.³⁷⁵

The victory at Metaurus may have allowed a reduction in the number of legions to twenty for 206, while operations in Spain ended after the great victory at Ilpia.³⁷⁶ In the following year (205) Scipio was consul, and received Sicily as his province. He began preparations for the African campaign by recruiting 7,000 volunteers and amassing material in Etruria and Umbria before leaving for his province.³⁷⁷ In Sicily he discharged some soldiers and reinforced his two legions until they numbered 6,500 citizens each. Livy, the only available source on the expeditionary force, gives three possibilities for its size: 10,000 infantry and 2,000 cavalry; 16,000 infantry and 1,600 cavalry; 35,000 infantry and 3,000 cavalry.³⁷⁸

If these legions were 6,500 men strong and were supported by the same numbers of *socii*, the total number of soldiers of Scipio's army would have been between 26,000 (if the number of Romans and allies were the same) to 30,000 men (if the allies were more numerous than the citizens. Appian reports an army of 17,600 men.³⁷⁹

The total number of legions in service decreased once again, this time to eighteen; they were divided between four sent to Gaul in order to face Mago's invasion, two in Etruria, one in Sardinia, four in Bruttium against Hannibal, two in Greece against Philip – after years of inactivity on this front, as mentioned by Livy himself –, one in Campania, and finally, the two in Sicily under the command of Scipio.³⁸⁰

In 204, Scipio's two legions landed close to Utica. The rest of the army was distributed in the following provinces: four legions were kept in Gaul and Bruttium in order to fight against Mago and Hannibal.

³⁷⁵ Livy, XXVII. 36

³⁷⁶ On the battle of the Metaurus, see Livy, XXVII. 48-49

³⁷⁷ Livy XXVIII. 45-46 regarding the gathering of material and volunteers.

³⁷⁸ Livy, XXIX. 25

³⁷⁹ Appian, VIII. 3. 13

³⁸⁰ On the inactivity against Philip V see Livy, XXIX. 12; regarding the number of legions in service and where they were stationed see Livy, XXVIII. 45

Two legions were stationed in Etruria, Sicily and Spain, while Campania and Sardinia received one legion.³⁸¹ In total that year there were nineteen legions in service.³⁸²

In 203, Rome maintained eighteen legions in service. Gaul and Bruttium still had four legions each, two were stationed in Etruria, Spain, Sicily and Africa, while Sardinia and Liguria received one legion each.³⁸³

By 202 the war was almost over, and the main front was of course Africa. The number of legions in service was reduced to sixteen divided between Etruria, Gaul, Bruttium, Sicily, Spain and, as said, Africa (two each). Also, Sardinia and Liguria kept the legion already there, while two were held in reserve in Rome.³⁸⁴

By 201, with the end of the war, more legions were disbanded. Fourteen were left in service: two legions were left in Gaul, Etruria, Lucania/Bruttium and Sicily, while two more urban legions were recruited. Sardinia was guarded by one legion, while it was decided to station one legion in Spain, now a new Roman province.³⁸⁵

We summarize in the below table the number of legions in service during the period 210-201, and estimate the number of Roman citizens under arms.

YEAR	LEGIONS IN SERVICE	CITIZENS IN SERVICE ³⁸⁶
210	21	91,500
209	21	91,500
208	21	91,500
207	23	100,500
206	20	87,000
205	18	85,000
204	19	89,500
203	18	85,000
202	16	76,000
201	14	67,000

³⁸¹ Livy, XXIX. 13 on the assignation of the legions in 204; it is not clear if Tarentum received one or two legions.

³⁸² Livy, XXIX. 35 on Scipio being forced to lift his siege of Utica. On the first battle of Croton see Livy, XXIX. 36

³⁸³ See Livy, XXX. 1 on the deployment of the legions in 203.

³⁸⁴ Livy, XXX. 27

³⁸⁵ See Livy, XXX. 41 on the deployment of the legions in 201.

³⁸⁶ Regarding the number of citizens in service we have to consider a couple of factors: between 210 and 206 the four legions in Spain under the command of Scipio counted roughly 17,000 Romans. After he left (so from 205 to 201), the province was left with two standard legions. From 205 we should also stop including the two *legiones cannenses* as they were incorporated in Scipio's army for the invasion of Africa that counted two legions of 13,000 Romans. Other than these exceptions, the rest of the army is looked as standard legions of 4,500 men to simplify the process.

- Military service and population during the Second Punic War

The Hannibalic War showed one of the most important characteristics of the armies of the Republic of the third century and, as we will see in the next chapters, of the second century: even though the Romans lost battles, they ultimately won the wars. The key element of this success was the capacity of Rome to exploit the vast manpower offered by the third century Italian communities, and Rome itself.

After the campaign of 218-216 that inflicted terrible losses to the Roman armies – and population –, the conflict changed radically: the great battles that have characterized this first part of the war were replaced mainly by raids and sieges or minor engagements. This deeply changed the war effort and the impact of the conflict on the population.

The proof of this is when, for the first time in a decade, Livy offers us a war-time census figure (the last one was before the war). He states that in 207 the citizen population counted 177,000 citizens, of course a dramatic drop from the 270,000 that he suggested in his previous census.³⁸⁷ During that year, because of Hasdrubal's invasion, Rome had 100,700 of its citizens in service between twenty-three legions, meaning that 57% of the census population was likely in the army.

However, there are reasons to modify this percentage. For the aftermath of Cannae, we have suggested a plausible census population of 161,000, which is within range of a census figure of 177,000 for 207, the population having been boosted by 10 years of new adult males. Yet, for the census of 204, Livy says that 'the five-year purification ceremony took place later than usual because the censors sent agents through the provinces to report on the number of Roman citizens who were in the armies in the various locations. With these included, the census numbered 214,000 souls'.³⁸⁸ If that did not happen in 207, then we have to include the citizens in the army outside Rome. Of the twenty-three legions in service in 207, ten were stationed outside Italy (42,000 citizens between Spain, Northern Italy, Sicily and Sardinia). Adding these, the census would increase to 219,000 citizens, close to the figure for 204, but surprisingly high considering the war losses. We should accept this reconstruction since:

³⁸⁷ On the census of 207 see Livy, XXVII. 36

³⁸⁸ Livy, XXIX. 37

- i) The war was completely different during the period 216-207 to that of the first years. This was reflected in much lower casualty rates.
- ii) Polybius suggests that the census requirement for military service was lowered, and we might advise that this happened probably in the period after Cannae.³⁸⁹

The reduction of the census requirement for service in the army is attested by Polybius who states that citizens who had less than 400 *drachmae* (4,000 *asses*) of property were assigned to naval service, with the presumption that those above that level were in the fifth class and went to serve in the legions. This was a significant reduction from the 11,000 *asses* given by Livy as the Servian level.³⁹⁰ Of course, all those citizens who owned between 11,000 and 4,000 *asses* were now eligible for service in the legions; this surely increased the census base that allowed the expansion in the census figures that we have suggested in occasion of the census of 207. This growth in its military population allowed Rome to keep recruiting soldiers and surely helped to absorb the losses of the previous years.

The table shows the changing of the census population, the number of legions in service and the percentage of citizens under arms over a period of 25 years, from 219 to the first census reported by Livy after the war (194). Also, it shows how many legions were in service outside of Italy and how, possibly, those soldiers could have altered the total number of citizens in the census figures – with the exception of 204 since, as said, they were included by the censors on that occasion.

YEAR	CENSUS POPULATION	LEGIONS IN SERVICE	% RECRUITED	POPULATION + SOLDIERS OVERSEAS	% RECRUITED
219	270,000	7	11%	//	//
216	161,000	15	37%	//	//
207	177,000	23 (10 overseas)	57%	219,000	46%
204	214,000	19	39%	//	//
194	244,000	8 (4 overseas)	14.7%	262,000	13.7%

³⁸⁹ Polybius, VI. 19

³⁹⁰ On the original minimum property requirements see Livy, I. 42-43; see Emilio Gabba, *Esercito e Società nella Tarda Repubblica Romana* (Firenze, 1973), 11-13

These figures suggest that citizen population displayed signs of recovery during the war, a recovery that continued during the first half of the second century until, by 174, the population reached the pre-war levels with 270,000 citizens registered in the census. It took a single generation (42 years from 216 to 174) for the Roman population to recover.³⁹¹

What were the long run demographic effects of the Second Punic War? It has been argued that this conflict must have undermined Rome's manpower resources causing a demographic decline of the Italian population. Yet, as noted by Luuk de Ligt, the Roman army was divided into age groups so that losses were probably concentrated on particular generations.³⁹² Furthermore, it is important to consider the relation between paternity/marriage and military service: Bagnall and Frier's research, based on Roman Egypt, suggests that paternity was high between 25 and 40, with a peak during the early 30s. Saller suggests that Roman men usually married in their late twenties while De Ligt suggests a very high fertility rate due to the tendency of Roman women to marry early.³⁹³

Polybius indicates the military age for Roman males was between 17 and 46 years of age; the manipular system, however, also made age an essential factor in terms of both role and membership of the army. A typical Roman legion consisted of 1,200 *velites*, 1,200 *hastati*, 1,200 *principes* and 600 *triarii*: that than half of the legion was composed by younger soldiers who served as *velites* and *hastati*. Men between 23 and 35 formed the heavy infantry and served as the *principes* in the typical *triplex acies* formation. Finally, the last part of the legion was formed by the *triarii*, the oldest and most experienced soldiers, whose age probably varied from 35 up to 46, and, not surprisingly, formed the smallest part of the legion with only 600 men.

It seems likely that unmarried men were the largest part of the losses to Rome and despite this may have had an eventual effect on the fertility rates of the Roman population, those effects were likely delayed. The Roman population would likely maintain fertility and produce young men to begin to fill the gap left by the dead of the years of Cannae. If the losses were to have a demographic effect, it would be delayed

³⁹¹ Livy, XLII. 10 for the census of 174.

³⁹² Luuk De Ligt, 'Roman Manpower and Recruitment', in ed. P. Erdkamp, *A Companion to the Roman Army* (Malden, 2007), 120

³⁹³ Roger Bagnall and Bruce Frier, *The Demography of Egypt*, (Cambridge, 1994), 146; Richard Saller, 'Men's Age at Marriage and its Consequences in the Roman Family', in *Classical Philology* 82 (Chicago, 1987), 31-33; De Ligt, 'Poverty and Demography', 749

since new fathers would not enter the reproductive cycle in the years after Cannae. We would thus expect a depression of the census figures perhaps 20-30 years after Cannae. That does not seem to happen.

We should also consider the overall effect of the war on the *socii*. The defection of numerous communities in Southern Italy surely influenced the manpower availability of the Italian allies; proof of that is the episode of the twelve colonies. Using the figure for the *alae sociorum* offered by Polybius (5,100 men per *ala*), we can try to estimate the military participation of the *socii*:

YEAR	<i>ALAE SOCIORUM</i> IN SERVICE	<i>SOCII</i> IN SERVICE
218	7	49,500
217	11	56,100
216	16	91,500
216 (after Cannae)	15	76,500
215	15	77,800
214	21	108,400
213	23	118,600
212	25	128,800
211	25	128,800
210	21	100,700
209	21	100,700
208	21	100,700
207	23	110,900
206	20	95,600
205	18	94,600
204	19	99,700
203	18	94,600
202	16	84,400
201	14	74,200

Regarding the allies, we have to consider the fact that many Italian communities fought against Hannibal on their own account, meaning that defections from Rome did not automatically translate into manpower for Hannibal's army.³⁹⁴

³⁹⁴ See Livy XXIII. 17-20 for the case of Casilinum defended mainly by *socii*; Livy, XXIII. 20 on the case of Petelia; Livy, XXIII. 14-16 on the Neapolitan cavalry; Livy, XXIII. 35-39 on the defense of Cumae. While the case of the battle at the river Calor of 214 shows an army composed by Lucanians, Bruttii, Numidians and Moors (see Livy, XXIV. 15), the treaty between Capua and Hannibal (Livy, XXIII. 7) says that no Carthaginian officers would have command over Capuan soldiers, suggesting that they were independent from the Carthaginians.

Polybius, II. 24 in his description of the great levy of 225 states that the allied communities were able to gather 463,000 men between those under arms and those available for service. Among these, 133,000 came from regions that defected to Hannibal after the military events of 216, a figure that grows to 167,000 if we add the 34,000 Campanians mentioned by Livy (so 36% of the total allied manpower).³⁹⁵

By keep using the figure suggested by Polybius, we may suggest a recruitment rate for the *socii* who were still fighting alongside the Romans. After the defections, 296,000 men were still available for service in the Roman army, and by 212 the number of allies under arms was 128,800, so 43.5% of their available manpower. These figures, however, do not take into account war losses. In the previous sections of this chapter we have suggested plausible casualties for both Romans and allies, although, when it comes to allies, losses, there is even more uncertainty. We might suggest that, by 215, a total of 54,400 Italians had been killed in action, decreasing the number of men available for service in the Roman army to 241,600. Thus, the 128,800 in the *alae* in 212 would increase to the 53.3% of the available allied manpower. In any case, there is no question that, just like their Roman counterparts, the *socii* were under strong military pressure.

* Conclusions

The most appropriate way to conclude this chapter is with a discussion on the population recovery that followed the war. In his *Rome at War*, Nathan Rosenstein looks at the growth rate of the Roman population and says:

‘Surprisingly, therefore, the great many deaths of young Roman men between 218 and the last third or so of the second century are very likely to have made a significant contribution to the dramatic rise in population that took place following the defeat of Hannibal. By increasing the availability of land and its overall productivity and profitability, by enhancing opportunities for occasional paid labor and the bargaining position of those in a position to supply it, by improving diet, by fostering a reduction in the age when women married, and by increasing couples’ willingness to have and raise more children, the era’s high military mortality helped set in motion the cultural and social

³⁹⁵ Livy, XXIII. 5 on the Campanian soldiers.

changes that brought about a rapid, dramatic growth of the Roman population.³⁹⁶

In Rosenstein's view, the deaths of many young men opened vast amounts of land to the Roman citizens which allowed a fertility boom.³⁹⁷ In analyzing Rosenstein's position, De Ligt wonders why 'did no similar population explosion occur after the Samnite War or the First Punic War?'³⁹⁸ In the census of 340, 166,000 citizens were registered. In the census of 289, just a couple of years after the end of the Third Samnite War (298-291), the Roman population had supposedly increased to 272,000 citizens.³⁹⁹ Of course, as we have mentioned in the previous chapter, the census figures of the early third century are not completely reliable, and the incorporation of populations may have increased the population during this period, but they can still offer us an idea of the population's development: it suggests that the Samnite Wars may have led to an increase in population.⁴⁰⁰

By 264, on the eve of the First Punic War, Rome's citizen population was supposedly 292,234. By the end of the war, it had decreased to 241,212, but it progressively recovered to 270,212 and 273,000.⁴⁰¹ It seems that although the wars may have temporarily suppressed the population, in the medium term they did not hamper growth and might perhaps even have encouraged it through the redistribution of resources.⁴⁰²

De Ligt is probably asking the wrong question. We should actually ask what the difference was between the aftermath of the Second Punic War in comparison with the Samnite Wars or the First Punic War. The Hannibalic War was not followed by a sudden population explosion but by a slow and constant recovery that started already during the war. The recovery that we have identified in census of 207 and 204 appears to have continued as attested by the census of 194.

³⁹⁶ Rosenstein, *Rome at War*, 154

³⁹⁷ De Ligt, *Peasants, Citizens and Soldiers*, 143

³⁹⁸ De Ligt, *Peasants, Citizens and Soldiers*, 143

³⁹⁹ On the census of 289 see Livy, *Per.* 11

⁴⁰⁰ See Livy, VIII. 11

⁴⁰¹ Eutropius, II. 18 on the pre-First Punic War census, while see Livy, *Per.* 19 on the number of citizens registered during the period 251-241; Livy, *Per.* 20 covers the period between 241-219; Polybius, II. 24 states that 273,000 Romans and Campanians were available for military service in 225.

⁴⁰² See also Saskia Roselaar, *Public Land in the Roman Republic* (Oxford, 2010), 148

The Second Punic War was undoubtedly devastating in many ways and the population losses of the early years of the war were astonishing, but the recovery of the Roman population suggests that neither in economic nor demographic terms was the war a major setback. The ability of Rome to mobilise such a high proportion of their manpower and still continue to function economically also suggests that military service was not felt as a significant burden on the ordinary soldier. Where we see strain is in the fiscal system, at least until the captures of Syracuse and Capua. In fact, the vast numbers of soldiers who were paid during this war must have entailed a redistribution of resources and a monetarization of the Italian economy. If I am right in associating the reduction in the census with the Hannibalic War, many of the poorest in Roman society would have had access to the *stipendium*. Soldiers had *denarii* in their pockets to spend and much more money must have been in circulation. Perverse though it may seem, the war may, in the medium term, have boosted economic activity and improved the economy of the poor.

Chapter 5

THE ECONOMIC IMPACT OF THE SECOND PUNIC WAR

In the previous chapter we have analysed in detail the Second Punic War in terms of recruitment and the manpower required by the war. In this chapter we are exploring the economic impact, and trying to understand how much damage the war actually caused to Roman Italy.

Any discussion on the economic effects of the Second Punic War should start with Arnold Toynbee and his *Hannibal's Legacy*. Although published in 1965, and subject to criticism – to the point that Cornell dismisses it as “...no longer accepted today”⁴⁰³ –, Toynbee's scheme is still influential and is the basis of subsequent models of decline. The effects highlighted in *Hannibal's Legacy* may be summarized as follows:

- Devastation of South-Eastern Italy
- Removal of the Italian peasantry by military service during and after the war
- Change for the worst in Rome's relations with the allies
- New economic opportunities, spread of new types of land use and plantation agriculture
- Growth of slave economy
- Urbanization and growth of industry
- Increasing influence of Hellenism on Roman cultural, social and intellectual life

Toynbee offered an emphasis on the Second Punic War as the main cause of change that undermined Roman society: the price paid to defeat Hannibal would backfire against Rome triggering the social problems that will cause the fall of the Republic, and, in the end, of the Roman world itself. Also, the magnitude of these changes is brought to the extreme as they are at the origin of the very complex socio-economic differences between the Northern and Southern part of present-day Italy.

⁴⁰³ Tim Cornell, 'Hannibal's Legacy: the effects of the Hannibalic War on Italy', in eds. Cornell, T., Rankov, B., Sabin, P., *The Second Punic War: A Reappraisal* (London, 1996), 104

I believe that it is possible to offer a different interpretation of the impact of the war; although the more traditional negative interpretation of the war offered by Toynbee, but also Brunt or Hopkins, that portrays an Italian peninsula devastated by the war, the war, actually, could have offered a positive input for Rome's economy as a form of early military Keynesian stimulus. The effects of the war changed from region to region, and, for this reason, we will look at specific cases that will offer a general idea of three different economic models of impact. We will argue that the money Rome spent on the war in military pay, military production and supply, caused an unprecedented circulation of cash into the economy. It is also possible to mark the Hannibalic War as a cause of the intensification of the agriculture of Roman Italy, and thus for the development of the villa-system and the capitalistic Catonian villae (as we will see into more details later in the thesis).

Our detailed study of the conflict highlighted the fact that after 216 the war effort was focused on Southern Italy, while key regions of Central Italy – Etruria and Latium in particular, but also Umbria and Picenum – were far less involved in military actions. Central Italy was able to sustain Rome and its enormous military effort during the most critical years of the war. It seems likely that the effects of the war were regionally differentiated.

1) Etruria

A very important corn supplier to the Roman armies, this region played a crucial role in the food supply during the war. The fact that this region witnessed hardly any military activity after 217 was also helpful. When Hannibal's army marched through the region it surely caused damage to the fields, farms and communities, as described by Livy, but, at the same time, the Carthaginians stayed only for a short period of time, insufficient to inflict heavy or permanent damage.⁴⁰⁴ Further Carthaginian operations, such as Hasdrubal's invasion of 207 or Mago's one in 205 did not involve Etruria; the first moved through the *ager Gallicus* before his army was crushed at the Metaurus (Picenum), while the other was confined to the Po Valley the entire time.

⁴⁰⁴ Livy, XXII. 3; he also describes this area: "...the Etruscan plains lying between Faesulae and Arretium, was amongst the most fertile in Italy, well blessed with grain, livestock and all other commodities."; also see Cornell, 'Hannibal's Legacy', 107

Etruria became one of Rome's main food suppliers during the hardest and crucial years that followed the defeat of Cannae; there are several reports in Livy's chronicle of corn shipments from Etruria to various Italian locations.⁴⁰⁵ Therefore, it is understandable why the Romans stationed a garrison in Etruria from 212 to the end of the war: not only to protect it from any attacks from the north, but especially to prevent any trouble to such a key region.⁴⁰⁶

Other regions that had traditionally supplied food, Campania in particular, but Apulia as well, were both war-zones. After 211, Campania and Sicily were returned to the Roman sphere and probably quickly began to supply Rome with food.⁴⁰⁷

The war with its high demands for large amounts of corn may have stimulated production and the financial benefits of meeting state contracts may have offered opportunities for enrichment. At the same time, in order to ensure the intensification of agricultural production or extension of the area under cultivation, it was essential to gather labour. This requirement contrasts with the very high recruitment rates for the period, but while a large part of the Roman and Italian workforce was in the legions, women, minors, slaves and, especially, migrants might have supplemented the labour of those men remaining on the land.

There is no reason to exclude women from the labour force, especially since, as suggested by De Ligt, the Roman female population survived the Second Punic War more or less intact.⁴⁰⁸ The same argument should be extended to minors. Livy reports that in 216, right after Cannae, a total of 17,800 younger men who were at least 17 years old were recruited in the army, but it is possible that this was an emergency procedure, as we don't know if it was repeated.⁴⁰⁹ However, boys who were younger than 17 should be included in the workforce. Slaves were probably not as numerous as in later centuries, but even if free smallholders were still the majority of the workforce, slaves likely made a contribution.⁴¹⁰ Migrants may

⁴⁰⁵ Livy, XXV. 15 says that Etrurian corn was sent to Tarentum; XXV. 20 describes that large quantities of corn were stockpiled in Etruria itself, while more was transported to Ostia before being shipped elsewhere. Also Livy, XXV. 22 mentions that soldiers were waiting for corn from Etruria. Finally, Livy, XXVII. 3 shows that more corn was transported from Etruria to Tarentum.

⁴⁰⁶ Livy, XXV. 3; also see Fronda, *Between Rome and Carthage*, 289-290 on Hannibal's failure to lure towards his cause communities in Central Italy – Etruria in particular.

⁴⁰⁷ On the aftermath of the fall of Capua, see Livy, XXVI. 15-16; Livy, XXVI. 40 on the reorganization of Sicily in order to sustain the food production.

⁴⁰⁸ Rosenstein, *Rome and the Mediterranean*, 115; De Ligt, *Peasants, Citizens and Soldiers*, 144

⁴⁰⁹ Livy, XXII. 57 says that these younger men were organized into four legions (16,800 infantrymen) and 1,000 cavalry.

⁴¹⁰ Livy, XXII. 57 on the *volones*.

also have supplemented the Roman workforce. Those who were displaced by the war would need to find work and the fields of Central Italy may have provided opportunities. Together with the rest of the Roman population, these refugees made available more than sufficient labour to allow the intensification of agriculture and the extension of the area under cultivation.

As we will see later, it is probably during these years that we can locate the expansion of the *villae* system as the war offered the possibility for great landowners to expand their properties and make profits mainly by selling their products to the state and the army.⁴¹¹

It is possible that other regions of Central Italy experienced a very similar situation, like Umbria and Picenum, and Latium, which experienced similar changes to Etruria.⁴¹²

Central Italy – Latium and Rome in particular – was also the centre of the Roman weapon production, surely another essential part of the economy of war. Also, the coastal regions of Central Italy (Latium, Etruria and Picenum) were surely very important for the manufacture and maintenance of the fleet.

Overall, we can suggest a positive impact of the war on the regions of Central Italy.

2) Campania

After Capua defected to join Hannibal, the region became one of the major war zones of the conflict. The continuous plundering and ravaging by both sides devastated the *ager Campanus*, and especially the area of Capua until the fall of the city in 211.⁴¹³ The conflict may have led to a significant wave of migration from Campania.⁴¹⁴

⁴¹¹ See Marzano, *Roman Villas*, 125

⁴¹² Latium was briefly attacked by Hannibal in 211 – see Livy, XXVI. 7-11 –, but his purpose was to lure the Roman forces that were sieging Capua.

⁴¹³ Livy, XXIII. 46 on the Roman attacks against the Capuan farmlands in 215. Livy, XXV. 13 on the situation at Capua by 212; Livy, XXV. 18 on new Roman raids. Also see Fronda, *Between Rome and Carthage*, 100-147 on the importance of political rivalries between Campanian communities. This factor determined who joined Hannibal and who remained loyal to Rome, and we might add it was also important for the post-war years.

⁴¹⁴ On the hardships of the people of Capua, see Livy, XXV. 13; although not mentioned by Livy, we might suppose that refugees from the countryside experienced the same, if not worse, conditions.

Recovery started after Capua was recaptured and was prompted by the continuing demand for corn by the army: the Senate knew the importance of an adequate and secure corn supply for the large armies of the Republic. For this reason, Campania had to become once again a major supplier for the Roman army, a role it occupied before the war. The demand for labour probably explains Roman policy towards Capua and other rebel towns: they were not destroyed, and the population was not killed or enslaved because their lands and labour were needed. The land of Capua, however, became property of the people of Rome, and for some time, the Campanians lost their political privileges, as they were excluded from the census until 189.⁴¹⁵ The Romans reorganized Capuan land; according to Livy, the property of the leading citizens was sold off, while newly acquired farmland was rented out, but that, in all cases, payment was made in grain.⁴¹⁶ Exceptional measures were taken in order to preserve the agricultural potential of the area: farm animals that were captured had to be returned to their owners, like slaves and all property described by Livy as: "...not attached to the ground."⁴¹⁷

Other regions of Campania had remained with Rome but their contributions to the war effort were probably hampered by raids and more prolonged warfare.⁴¹⁸ During the second part of the war, it is possible that the Roman armies were able to capture more prisoners in Southern Italy, but, as Erdkamp notes, these numbers should not be overestimated.⁴¹⁹ Rome encouraged the Campanians to return to their land and restore its productivity. The confiscations of land allowed an expansion of the *ager publicus* that was soon sold to those were able to invest, and profit from the demands for agricultural goods. These conditions allowed the *ager Campanus* to regain productivity, though it probably required some time before it returned to pre-war levels of production.

⁴¹⁵ See Livy, XXVI. 16: "The question of the city and its lands remained to be discussed, and some people were advocating the destruction of a particularly strong city that was so close by and hostile to Rome. But immediate utilitarian considerations prevailed, and it owed its salvation to its agricultural land, which was widely recognized as the foremost in Italy for its overall productivity – the city would be a home to the people farming that land. To keep the city inhabited, its population of resident foreigners, freedmen, traders, and craftsmen was kept on, and all the farmlands and buildings became the public property of the Roman people."

⁴¹⁶ Livy, XXVII. 3

⁴¹⁷ Livy, XXVI. 34; regarding the slaves, Livy says that adult male slaves were not to be given back to their owners – so they became Roman property.

⁴¹⁸ Livy, XXIII. 46 states that supplies from Nola and Neapolis were brought to the troops at Suessula.; Livy, XXIV. 13 says that Hannibal in 214 raided the land of Cumae, city that remained loyal to the Romans. See Livy, XXIII. 16 on the first battle of Nola (216), Livy, XXIII. 44-46 on the second battle of Nola (215), and Livy, XXIV. 17 on the third and final battle of Nola (214). At this point Hannibal decided to abandon the conquest of Nola and moved to Tarentum.

⁴¹⁹ Paul Erdkamp, *Hunger and the Sword, Warfare and Food Supply in Roman Republican Wars (264 – 30 BC)* (Amsterdam, 1998), 285

Campania offers a double case in terms of impact of the war. At first, obviously, it was influenced negatively, but from 211 we might suggest a progressive transformation: the region was not threatened by the Carthaginians anymore as fighting moved to Apulia, Lucania and Bruttium. From this moment Campania was able to start the same process that was going on in Central Italy, although later, and, especially after years of intense combat, Rome created favorable conditions for a fast recovery.

3) Samnium

This region was hit very hard by the war especially after 216 when defections divided Samnium into two parts: those who joined Hannibal and those who stayed loyal to the Romans. This situation caused great destruction because both sides regularly ravaged enemy territories.⁴²⁰ This caused levels of ruin and depopulation no less severe than the worst areas of Campania.

Recovery in Samnium happened very differently from Campania, and was much slower: first of all, this region is not as fertile as Campania or as Apulia, so its economic recovery was less urgent. Secondly, by the time the region was pacified, demand for corn was less high. The combined production of Etruria (and the rest of Central Italy), Sardinia, Campania and Sicily was enough to satisfy the demands of the army and civilian market leading to a fall of prices.⁴²¹

Samnium was also unlikely to have attracted refugees from the war and may, indeed, have lost population. Although it wasn't the region where fighting was most intense, as Lucania and Bruttium in particular resisted Rome for longer, it was traditionally a rather poor region, especially if compared with Etruria, Latium or Campania. It is probably no coincidence that this region, together with Apulia, was chosen as the settlement for at least 50,000 of Scipio's veterans in a virginal distribution right after the war.⁴²² In 180, 40,000 Ligurian men followed by their wives and children were forced to move to Samnium by the Romans who allocated plots on *ager publicus* and even provided them with money to

⁴²⁰ Livy, XXIII. 41 on Romans' raid against the Samnites in 215; Livy, XXIV. 20 on the Roman operations in Samnium in 214.

⁴²¹ Livy, XXX. 26 states that 203 was a year of particular cheapness of grain mainly because of massive imports from Spain into Italy. Also, Livy, XXX. 38 says: "At about that time [202] supplies from Sicily and Sardinia made the price of grain so low that the merchant would leave his cargo of wheat to the crew to pay the cost of its transport." Also, Livy, XXXI. 4 notes that a large quantity of grain was brought from Africa by Scipio, and Livy, XXXI. 50 remarks that corn was still cheap by 200.

⁴²² See Livy, XXXI. 4 on the distribution of land to Scipio's veterans.

commence farming.⁴²³ These allocations suggest that at the end of the war, and in the following decades, there was spare land in Samnium.

These three cases offer us an overall impression of the economic impact of the war. The rest of peninsular Italy followed similar patterns: the situation in Central Italy was probably very similar to the one we have described for Etruria, while the rest of Southern Italy (Apulia, Lucania and Bruttium), more or less had the same problems as Samnium. Campania, because of its economic importance, was an exception.

We have excluded from this analysis Northern Italy, as it was not Roman territory. By 218 Rome had been beginning the occupation of the Po Valley through the colonies of Placentia and Cremona; the arrival of Hannibal immediately started an uprising that lasted until the late 190s. Only with its defeat were the Romans able to complete the conquest of the Po Valley, and initiate a major colonization programme.

In the following section, I will examine whether we can estimate more closely the differential effects of the war on the populations of the various regions of Italy.

Our analysis should look at how the population was geographically distributed, and we can begin from Northern Italy. This region should be divided into two parts, the Po Valley in the north – Cisalpine Gaul –, and the *ager Gallicus* south of the colonies of Placentia and Cremona. The differences between these two parts are vast and very important in the overall impact of the war on the economy and the population. The Po Valley, by the time of the Hannibalic invasion, had been recently invaded and partly occupied by the Romans who established the colonies of Placentia and Cremona in 218. These two cities were constantly threatened by the Gauls and sustained great difficulties, at the point that many left their land and were almost compelled to return and, in 190, both colonies received large reinforcements – 6,000 new settlers each. It was only with the defeat of the resistance of the Boii in the late 190s that the Po Valley was secured allowing the demographic, urban and economic development of this area.

⁴²³ Livy, XL. 38 on this episode; he says that Rome gave them a total of 150,000 *sesterces* (so 37,500 *denarii* – 375,000 *asses*). They were moved to *ager publicus* that was previously owned by the Taurasini, so we might suggest that this was vacant land already equipped for farming.

The rest of the Roman Northern Italy did not see a lot of military activity with the exception of the passage of the Punic armies between 218 and 217, and 207. Magus' invasion of 205 was limited to the Gauls' territories before he was defeated and called back to Carthage. The Gauls themselves, never operated more southern than the Po Valley itself or Mutina during the war and even during their following uprising in the 190s.

Roman population in this area varied: while the Romans were starting their occupation of the Po Valley in 218, it was only after the war and the subsequent defeat of the Boii that the region started to be more intensively occupied. The *ager Gallicus* was probably more densely populated and probably less involved in the military operations against the Gauls in Cisalpine. Brunt suggests that this area played an important role in the overall recovery of the population. As we have argued already, the Hannibalic War should be divided into different phases. After Cannae the war is characterized by less great battles (thus less war losses) and a slow, but general recovery of Rome's population. This was possible because the new generation of citizens, those born between the mid-230s and the early 220s, who was coming into military age during the second phase of the conflict was stronger than the previous one.⁴²⁴

This was the result of distribution of land to citizens in Roman territory after the First Punic War, within the period 240-219, that promoted an increase of fertility; the only agrarian scheme recorded was that effected under Flaminius' agrarian law of 232.⁴²⁵ Sons born to the colonists under his scheme would not have been old enough to be enumerated in 219 (a child born in 231, for example, was only 14 in 218 when the war started; he reached military age – 19 years of age – by 212). The generation rising during the first part of the Second Punic War should have been larger than the previous one – the one who had been decimated by the war – as it was the result of the settlement in the *ager Gallicus* and *Picenus*.

Central Italy, on the other hand, saw only three moments of military activity: in 217 during Hannibal's passage, briefly in 211 when Hannibal tried – and failed – to lure legions away from Capua by marching into Latium, and for a short time again in 207 at the time of Hasdrubal's invasion when he was intercepted in Picenum. All of these, however, did not cause long-terms effects, and for the rest of the war these regions (Etruria, Latium, Umbria and Picenum) were not war-zones, so their production and population did not sustain serious damages.

⁴²⁴ See Brunt, *Italian Manpower*, 62

⁴²⁵ See Brunt, *Italian Manpower*, 28 and Roselaar, *Public Land*, 148

It is possible that the population of these regions was very high before the war; Latium and Etruria were probably two of the most populated regions of Italy together with Campania. In terms of population, Campania sustained war losses and suffered from both sides.⁴²⁶ Soon after the war, four colonies were established in Campania (Salernum, Puteoli, Volturnum and Liternum), probably because land was available.⁴²⁷ A full recovery in Campania would have taken time, but it was likely achieved relatively early in the second century.

Other regions of Southern Italy were affected by the war. The situation described for Samnium was probably very similar in Apulia: both regions were seriously damaged by the war. After the war, considerable amounts of land were confiscated by the Romans and became *ager publicus* and large Latin colonies, Thurii Copia (193) and Vibo Valentia (192), were established.⁴²⁸ Considering the size of the land allotments suggested by Livy, it seems that land was available. The colonies were probably intended to boost the population of these areas and as a military presence to secure the region.⁴²⁹

Overall, regarding Southern Italy, the economic and demographic recovery was hampered by events of 211 and 210. By this period, both Campania and Sicily were under full Roman control, and the government adopted measures to motivate production and investments so that, by combining their productivity with that of Central Italy and Sardinia, and later even Spain, both the civilian population and the army were now able to receive ample supplies. The number of legions in service started to be reduced after 207, making the military demand less pressing, and, as a consequence, this led to a decrease of the prices of corn, making commercial farming less appealing than before. On the other hand, if regions like Samnium, Lucania or Bruttium were not attractive for large landowners, conditions were now more favorable for a demographic expansion of the peasantry: land – both private and public – was available.

⁴²⁶ Livy, XXIII. 35 mentions that the Capuans took the initiative and attacked Cumae – loyal to Rome.

⁴²⁷ On the foundation of the Campanian colonies, see Livy, XXXIV. 45

⁴²⁸ Regarding the foundation of Vibo see Livy, XXXV. 40: it counted 4,000 settlers, and 15 *iugera* of land were assigned to each infantrymen, while each cavalrymen received 30 *iugera*. At Copia, see Livy, XXXV. 9, the 3,300 settlers received allotments of 20 *iugera* for *pedites*, and 40 *iugera* for *equites*.

⁴²⁹ Livy, XXIV. 15 on the strong presence of Lucanians and Bruttians in Hannibal's army; also see Kathryn Lomas, 'Rome, Latins and Italians in the Second Punic War', in ed. Hoyos, D., *A Companion to the Punic Wars* (Chichester, 2011), 345 and 348

There is no doubt that the population declined during the war as the defeats of 218-216 caused a demographic shock: we have suggested a hypothetical census figure for 216 dramatically lower than that of 219. Also, the prolonged heavy recruitment rates delayed the recovery, as many men of marriageable age were in service in the army. Brunt suggests that the return of peace might have stimulate birth-rates, so more new citizens were coming to maturity in the penultimate decade of the third century (210s) rather than in the 230s or 220s.⁴³⁰ Very high birth-rates need to be counterbalanced by high level of military participation, and the consequent absence of men. Secondly, we have to consider the more peaceful conditions of the regions of Central Italy (after brief exceptions) and its northern part – the *ager Gallicus* –, while the Southern part of the peninsula was progressively pacified; Hannibal ceased to be a serious threat in 207 until, by 203, he left Italy. The census figures of 207 and 204 suggest that the population was recovering; as Dyson writes: ‘Certainly, a generation was decimated during the Second Punic War, but many of those losses would have been rapidly replaced by the maturing of younger males spared by the war’.⁴³¹

The gravity of the population decline probably varied from region to region. The economic survey that we have offered suggests that the weakening of the Southern part of the peninsula, Lucania and Bruttium in particular, was balanced by the recovery of Campania while land availability in Samnium and Apulia favored allotments of large quantity of people (the case of Scipio’s veterans, colonial foundations in Apulia, the case of the Ligurians). The central regions – Latium, Umbria, Picenum and Etruria – were the ones that suffered the least during the war, especially from an economic point of view. Migration from the Southern regions may have partly balanced war losses and the high demand for labour in the fields and towns, Rome in particular, would have provided migrants with a living. As we will argue in the later chapters, military service was an alternative form of employment and of income. After the census requirement for service was lowered to 4,000 *asses*, a new and large part of the Roman and Latin population became able to access the benefits of service.

To conclude this part on the demographic impact of the war connected with the economy, I discuss the availability of labour. While many Roman males were recruited into the legions, a still considerable part of the population was not involved in the military operations. Above, we suggested a census figure of 161,000 citizens for 216. At that time, fifteen legions, a total of 63,800 Roman citizens (39.6%), were in

⁴³⁰ See Brunt, *Italian Manpower*, 62

⁴³¹ Stephen Dyson, *Community and Society in Roman Italy* (Baltimore and London, 1992), 28

service. This would leave 97,200 men free from military service. In 207, the census figure as reported by Livy was 177,000 Roman citizens.⁴³² If, as we have suggested, we include the soldiers stationed overseas and increase the total population to 219,000 citizens, the number of those not in the army would rise to 118,500. De Ligt suggests that the Roman female population (between 17 and 45) was 230,000 by 225; since they were not directly involved in the war, we might suggest that their figure remained stable or slightly higher so that, by 207, we might suggest a total population of 250,000 free women.⁴³³ Women were likely an important part of the workforce, but it is possible that their role in the production of food increased in the absence of their menfolk. The same argument can be applied to minors.

Finally, we have to consider the role of the migrants. As Erdkamp says: ‘...migration was a crucial factor in determining the economic conditions in war-time and post-war Italy’.⁴³⁴ Migration is hardly attested but it seems likely that many people were displaced from regions like Campania or Samnium to more peaceful regions like Etruria, Latium or Picenum. We cannot distinguish between permanent or temporary migration.⁴³⁵ Because of the recruitment levels, work was likely available, in the fields (like the cases of Etruria and the other regions of Central Italy), and probably in towns as well (weapon manufacture) or in the coastal regions (ship building).

* The role of the army: the war economy

This section of this chapter is focused on what we can call the economy of war. Of course we have to consider the cost for Rome in maintaining so many legions for so many years, but, contrary to the more traditional view, we are going to suggest a more generally positive impact of the army during the Second Punic War. First of all, we will discuss the role of the military ‘industry’ in terms of weapon manufactory, and how this can be considered the beginning of mass state production and the first step towards standardization of military equipment. Also, we should consider ship building and maintenance, as Rome kept a large fleet in service during the entire war. We will also analyse the importance of war indemnities, and finally, we will conclude with the key argument in terms of the connection between the army and

⁴³² On the census of 207 see Livy, XXVII. 36

⁴³³ De Ligt, *Peasants, Citizens and Soldiers*, 144

⁴³⁴ Erdkamp, *Hunger and the Sword*, 280

⁴³⁵ Livy, XXVI. 10 on the people fleeing into Rome in 211 during Hannibal’s brief attack on Latium. Livy, XXVII. 11 says that in 206 the consuls were instructed by the senate to convince migrants to leave Rome as, by now, it was safe to return to the countryside.

the economy: the money spent by Rome in order to pay its soldiers during the war, and considering the actual meaning of this immense economic effort.

The Hannibalic War is a plausible starting point for seeing the Roman state taking the place of small craftsmen in the production and supply of military equipment. Hilary and John Travis, on different occasions, highlight the reforms of Marius as the likely beginning of mass state production of weapons and equipment since the abolition of the census requirement for service in the army produced the need to equip poor soldiers.⁴³⁶ Contrary to this model, we should focus our attention to the Second Punic War which also was a moment of crisis in which the state might plausibly have become involved in the production of equipment.

a) The reduction of census requirement for military service from 11,000 *asses* to 4,000 *asses* meant that less wealthy citizens required equipment.⁴³⁷ The costs of production may have retrieved from the stipendium of a soldier.

b) With the increase of men under arms, the legions required unprecedented levels of equipment. One also presumes that much equipment was lost during the disastrous early years of the war: Polybius tells us that Hannibal re-equipped his soldiers with Roman weapons and armour.⁴³⁸

These conditions probably made it impossible for local craftsmen to meet the demand for equipment. The state likely became involved in the production of military equipment. Since Rome formed new legions every year, the demand for equipment was regular and sustained and whatever the mechanism by which these needs were met, it entailed a significant level of work (and income) for smiths and their suppliers.

Our main source on the standard equipment assigned to the soldiers of the Roman army is Polybius⁴³⁹:

⁴³⁶ Hilary and John Travis, *Roman Helmets* (Stroud, 2014), 52 and 159

⁴³⁷ See Livy, I. 43 on the 11,000 *asses* minimum census requirement; see Polybius, VI. 19 on the plausible reduction to 400 *drachmael/denarii* (so 4,000 *asses*).

⁴³⁸ Polybius, III. 87: "He also rearmed his African troops with Roman equipment, selecting the best weapons for the purpose, since he was now in possession of huge stores of captured arms."

⁴³⁹ Polybius, VI. 22-23

- a) The youngest and poorest recruits, who formed the ranks of the *velites*, were equipped in a simpler fashion: they had swords, javelins and the *parma* (a small, round shield).
- b) The bulk of the legions was composed by the *hastati* and *principes*, both equipped in the same way: the *gladius* (short thrusting sword) was their main offensive weapon, but they also had two *pila* (javelins). Their protective panoply included bronze helmets, a large oval shield (*scutum*), a brass breast-plate (*pectorale*) – which could be upgraded to a *lorica* (chainmail) that offered better protection, but was more expensive⁴⁴⁰ – and bronze greaves.
- c) The *triarii* had the same equipment, but instead of the throwing spears they were equipped with the longer thrusting spears (*hastae*).
- d) Regarding the equipment of the cavalry Polybius is vaguer; he states that, at first, Roman cavalrymen fought with minimal protection in order to increase mobility, but they started soon to employ ‘Greek equipment’, so probably increasing the protective equipment.⁴⁴¹

This different kind of equipment, combined with the large quantities required by the numerous legions levied by Rome surely made weapon manufactory a very large business. It is plausible that in order to sustain the request of military equipment, the Republic had to buy from large contractors probably located in towns, Rome in particular, but we should presume that other medium-size towns were able to sustain weapon production. An interesting case is when, after the conquest of New Carthage in 209, Scipio made all the artisans of the town – 2,000 according to Livy⁴⁴² – work for Rome; he promised them freedom in exchange for their work.⁴⁴³ It is likely that smiths and others adapted their production to meet military demands, but the extent and regularity of the demand for weapons from the outbreak of the Hannibalic War onwards almost certainly affected the market, providing reliable and regular paid work. The production of military equipment required resources (notably the metal ore) and this likely triggered an expansion in mining.⁴⁴⁴ Large scale warfare generated industrial demands that in themselves are likely

⁴⁴⁰ Polybius, VI. 23 says that only soldiers whose property was above 10,000 *drachmae/denarii* could afford the *lorica*.

⁴⁴¹ Polybius, VI. 25 on the cavalry: “...the Romans began to copy Greek arms, for this is one of their strong points: no people are more willing to adopt new customs and to emulate what they see is better done by others.”

⁴⁴² On the number of artisans of New Carthage, see Livy, XXVI. 47

⁴⁴³ Livy, XXVI. 51: “...while the city itself, with the smiths and artisans of all trades shut up in the state workshops, rang continuously with the sound of warlike preparation.”; Livy, XXVII. 17: “He [Scipio] had moreover a very large reserve of weapons, which included those taken at New Carthage and all he had had made after the capture of the town by the numerous workmen he had kept shut up for the purpose.”

⁴⁴⁴ William Broadhead, ‘Migration and Transformation in North Italy in the 3rd – 1st Centuries BC’, *BICS* 44 (2000), 149-150 highlights that the mineral resources of Northern Italy were well exploited by the Romans.

to have had significant economic effects, encouraging artisanal production and also distributing cash through Roman society.

Ship building was also part of military 'industry'. Rome, after all, kept a large fleet in service during the entire war that offered a very important advantage over the Carthaginians. Its scale is suggested by Livy when he describes the preparations for war in 218 and says that the Roman fleet counted 220 *quinqueremes* and 20 cutters.⁴⁴⁵ This fleet, naturally, needed maintenance and new ships in order to replace losses. Ship building and manufacture required various materials: the boats needed the wood and metal and rope for their basic manufacture, but also all the fittings. All of this, consequently, required (and offered) labour, and this was certainly focused on the coastal regions of Italy, both on the Tyrrhenian Sea, but also on the Adriatic Sea – especially after the treaty between Hannibal and Philip and the creation of the Macedonian front.⁴⁴⁶

Nevertheless, the main fiscal pressure was surely the payment of the soldiers. As we have seen in the military payment chapter, soldiers received their *stipendia* in *asses*. The fall of Syracuse (212) allowed the Republic to reform its financial/monetary system and to introduce the *denarius* as the main currency. By this point soldiers were paid in *denarii* although, as described by Tacitus at the time of Tiberius, they computed their payment in *asses*.⁴⁴⁷

To summarise Polybius, infantrymen were paid two *obols* (3 *asses*) per day for a total of 1,080 *asses* per year; centurions received four *obols* (6 *asses*) per day, so 2,160 *asses* per year; finally, cavalrymen were paid 1 *drachma* (9 *asses*) per day (3,240 *asses* per year). With these figures, we can estimate total cost of a Polybian legion, by looking at how much its individual parts were paid on a yearly base. A Polybian legion counted 4,200 infantrymen and 300 cavalrymen, and this was the standard Roman military unit in service during the Second Punic War. The legion was divided between regular soldiers, officers (Polybius mentions the centurions, but also the *optiones* – probably junior officers), and cavalrymen, as each of them received, as we have just saw, different money.⁴⁴⁸

⁴⁴⁵ Livy, XXI. 17: "...and as great a fleet as could be mustered."

⁴⁴⁶ On the treaty see Livy, XXIII. 33-34 and Polybius, VII. 9

⁴⁴⁷ Pliny, XXXIII, 13, 45: "...in the pay of soldiers one denarius has always been given for ten asses."; Tacitus, *The Annals* (I, 17, 6): "Indeed a soldier's life was hard and unrewarding, he said. Body and soul, he was worth ten asses a day..."; also see Rathbone, 'Assidui and Prima Classis', 151-152

⁴⁴⁸ Polybius, VI. 24 on the *optiones*; since he doesn't say how much they were paid, we have suggested that they received less than the centurions, but more than a soldiers, one payment and a half.

UNIT	PAY (in asses)	TOTAL PER YEAR (asses)
4,080 soldiers	3 per day / 1,080 per year	4,406,400
60 <i>optiones</i>	4.5 per day / 1,620 per year	97,200
60 centurions	6 per day / 2,160 per year	129,600
300 cavalrymen	9 per day / 3,240 per year	972,000

From the data on the table, we can see that a single legion required 5,605,200 *asses* per year. Knowing how much money a single legion required annually, and knowing the number of legions in service year after year during the entire war, we can actually attempt to estimate the yearly cost of the war for Rome in terms of military payment for the period between 218 and 200 (we are including the first after the end of the war, to see the difference between the years of the Second Punic War and when Rome returned to a normal military activity).

In the following table, in order to simplify the process, we are counting legions of 4,500 men each (we are not considering any possible negative variation to the legions in terms of strength – so no weaker legions as suggested by Brunt), and the total annual cost is the result of the payment given respectively to infantrymen (both legionaries and centurions) and cavalrymen. Finally, we have to highlight some exclusions: a) The two *legiones cannenses* between 216 and 206 (as Livy clearly says they were not supposed to receive payment⁴⁴⁹). From 205 they were included in the new army under the command of Scipio; b) We don't know if the two legions of *volones* in service between 216 and 212 were paid, but considering their status (they were formed by slaves, former convicts, etc.), we might suppose that they fell under the responsibility of their commander; c) Scipio's two African legions in service between 205 and 201 because they were partly made up with soldiers from the *legiones cannenses*⁴⁵⁰; d) The Spanish legions in service between 215 and 211: from Livy's chronicles we know that Rome was not sending supplies and cash to them, at the point that the Senate recommend to the Scipios to gather money from the Spanish communities.⁴⁵¹ We should re-include them by 210, when reinforcements from Italy started to arrive once again.

⁴⁴⁹ Livy, XXIII. 31

⁴⁵⁰ Livy, XXIX. 25 on the formation of Scipio's African legions.

⁴⁵¹ Livy, XXIII. 48: "But, the letter continued, there was need of cash for their men's pay, and the army stood in need of clothing and food rations, and the naval crews in need of everything. If the matter of pay, they said, they would find some way of extracting it from the Spaniards, if the treasury were depleted; but everything else certainly had to be sent from Rome and, without it, maintaining either the army or the province was an impossibility."

YEAR	LEGIONS IN SERVICE	CITIZENS IN SERVICE	COST OF LEGIONS (in asses)
218	7	31,500	38,556,000
217	11	49,500	60,588,000
216 (after Cannae)	15	63,800	62,337,600
215	15	63,800	44,064,000
214	21	90,800	77,112,000
213	23	99,800	88,128,000
212	25	108,800	99,144,000
211	25	108,800	99,144,000
210	21	91,500	104,652,000
209	21	91,500	104,652,000
208	21	91,500	104,652,000
207	23	100,500	115,668,000
206	20	87,000	99,144,000
205	18	85,000	88,128,000
204	19	89,500	93,636,000
203	18	85,000	88,128,000
202	16	76,000	77,112,000
201	14	67,000	66,096,000
200	6	27,000	33,048,000

The figures in the table are estimates since, as we have suggested, there are many variables.

The census requirement for the *prima classis* was 100,000 *asses*, and the likely average senatorial fortune was not necessarily many multiples of that figure. We have no way of assessing the total fortunes of the senators, but for the purposes of comparison, if we assume 300 senators with an average census of 500,000 *asses*, the total fortune of the senate would be 150,000,000 *asses*, likely to produce a total annual income of no more than 15,000,000 *asses*. Once one starts thinking of the likely total revenues of the Roman state, it becomes very difficult to see how Rome could sustain so many troops in the field for so long. On several occasions, Livy reports that the Republic, especially during the difficult years after Cannae, lacked funds (*inopia aerarii*).⁴⁵² The commanders of the legions stationed in Sicily and Sardinia in 216 complained that their soldiers were not paid and did not receive supplies regularly. The senate

⁴⁵² Livy, XXIII. 5 reports a speech in Campania in 216: “Are we to tell you we are lacking in cash, as if that is all we lack? Fortune has left us absolutely nothing that we can even supplement! Legions, cavalry, weapons, standards, horses, men, cash, supplies...” Also, Livy, XXIV. 18 says: “The workings of government were as vigorous at home as they were in the field. Because of the insolvency of the treasury...” and then he describes some measures adopted by the censors to gather money in 214.

was forced to pass responsibility back to the generals.⁴⁵³ Similar claims were requested in 215 by the commanders of the Spanish legions, but in this instance, the state made an extraordinary levy to furnish supplies to that army, while cash was extracted from the Spanish communities.⁴⁵⁴ In 215 the senate imposed double taxation.⁴⁵⁵ The following year, Rome manned its fleet with crews raised and paid from private funds after an edict of the consuls imposed citizens with certain census levels to pay the crewmembers of the fleet, a measure repeated in 210.⁴⁵⁶ The Roman government also auctioned off public land.⁴⁵⁷

The capture of cities then was probably a crucial boost to Rome's war effort. The fall of both Syracuse and Capua, the triumph of Nero in 207, the triumph of Scipio after his campaign in Spain (206) were not just military successes but offered the opportunity to replenish the treasury and captured towns might expect all their moveable wealth to be seized by Rome. Of course, the most significant influx of income likely came at the end of the war with Scipio's victory.⁴⁵⁸

Finally, something that is usually not considered in the matter of the economic impact of the war, but should be included as it is part of the post-war economy, are the war indemnities forced upon Carthage at the end of the war.⁴⁵⁹

As Livy tells us, Scipio, among other conditions, imposed a payment of 10,000 silver talents to be paid in annual instalments over a period of fifty years.⁴⁶⁰ If we consider that a plausible ratio between *denarius* and talent is 6,000:1, it would mean that Carthage had to pay 60,000,000 *denarii*. Additionally, after having set down the terms for peace, the Romans offered to the Carthaginians a three-months truce –

⁴⁵³ Livy, XXIII. 21: Titus Otacilius, propraetor in Sicily, sent a delegation to Hiero of Syracuse who sent money and six months' supply of grain (this was probably a loan, as Livy, XXIII. 38 mentions that the following year – 215 – Appius Claudius received money from the senate to repay Hiero). Aulus Mammula, propraetor of Sardinia, turned to the allied city-states which contributed "generously".

⁴⁵⁴ Livy, XXIII. 48 on the scarcity of supplies and cash of the legions in Spain.

⁴⁵⁵ Livy, XXIII. 31

⁴⁵⁶ Livy, XXIV. 11; for the edict of 210 see Livy, XXVI. 35

⁴⁵⁷ Livy, XXVIII. 46

⁴⁵⁸ Livy, XXV. 31: "Such, by and large, was the capture of Syracuse, and the quantity of booty taken was so great that more would hardly have been forthcoming if it were Carthage that had been captured..."; Livy, XXVI. 14 on the wealth taken from the Capuan senators. Regarding Nero's triumph, see Livy, XXVIII. 9: "The money the consuls brought to the treasury amounted to 3,000,000 sesterces and 90,000 bronze asses." Livy, XXVIII. 38 on Scipio's triumph of 206, and Livy, XXX. 45 on his second triumph in 201.

⁴⁵⁹ On the role of war indemnities see Kay, *Rome's Economic Revolution*, 37-42

⁴⁶⁰ Livy, XXX. 37 on the peace treaty.

probably in order to give the respective governments the practical time to work the terms of the treaty and, ultimately, accept them – at the price of 25,000 pounds of silver.⁴⁶¹ This would mean 11,340 kilograms of silver, so 351 Roman talents (as one Roman talent is 32.3 kg of silver), thus the equivalent of 2,106,000 *denarii*.

We don't know if the Carthaginians paid equal instalments every year – it is, however, possible, as we will shortly see –, but, to simplify, we may consider that they paid 200 talents each year for fifty years, thus Rome's treasury had the guarantee of an additional annual income of 1,200,000 *denarii* just from war indemnities. As noted by Rosenstein, Carthage recovered fast from the war, and, by 191, while gathering the supplies requested by the Romans for the war against Syria, it proposed to pay all of the debt in one large instalment, but Rome declined, thus suggesting that the Carthaginians kept paying until 151 (coincidentally, a couple of years before the Third Punic War).⁴⁶² The rapidity of Carthage's economic recovery, however, should be noticed, as it seems to suggest a general growth of the western Mediterranean post-war economy (considering that this large payment was offered only ten years after the end of the war).⁴⁶³

It is undeniable that the cost of the war proved to be a massive burden on Rome's finances, but the expenditure spread cash throughout the Italian economy. The *stipendium*, the requirements for food and military production injected cash into the economy. At the very least, it must have redistributed wealth perhaps to the poorer citizens serving in the army and those supplying the material for the war effort. Perhaps also there were wealthier individuals who were in a position to bid for military contracts who might have benefited from the war effort. Contrary to all the negative theories expressed by Toynbee, Brunt or Hopkins, we might even argue that the Second Punic War allowed a restructuring of the economy and wealth that was at the foundation of the economic prosperity of the second century.⁴⁶⁴ The monetarization of the economy; the development of commercial farming associated with the so-called 'Catonian' *villae*, the development of an administrative and fiscal infrastructure for state contracts, the

⁴⁶¹ Livy, XXX. 38

⁴⁶² Livy, XXXVI. 4: "...and, with a single payment, discharge in full the indemnity which they were under obligation [...] the response regarding the money was likewise [negative] that the Romans would not accept any before the due date." Also Rosenstein, *Rome and the Mediterranean*, 234 adds that Rome wanted to maintain its position of superiority over Carthage as long as possible by using this payment as a reminder.

⁴⁶³ Polybius, XVIII. 35 says that Carthage was the richest city in the world.

⁴⁶⁴ See Nathan Rosenstein, 'Italy: Economy and Demography after Hannibal's War', in ed. Hoyos, D., *A Companion to the Punic Wars*, 412-416

input of cash to the peasant soldiers and perhaps even the opportunities that came from the mobility and loss of population, land availability and later colonization, all could be seen as encouraging development rather than an economic and social catastrophe.

Chapter 6

THE RECRUITMENT SYSTEM OF THE ROMAN ARMY

Part 3: the second century

In this section of the thesis we will analyze Rome's recruitment system and military effort during the second century from the end of the Second Punic War to 125. This chapter is divided into two parts: the first is focused on the period from the beginning of the second century to the aftermath of the Third Macedonian War, while the second part of the chapter will analyze the second half of the century up until the late 120s.

The years following the victory over Carthage did not bring peace to the Mediterranean. However, if compared with the enormous efforts sustained by the Republic during the long struggle against Hannibal, the wars of the second century appeared very different. For the most part they were shorter, they drew less heavily upon Rome's manpower, and casualties were far fewer. As a result, there were less legions in service. During the first half of the second century between six and eight legions were usually in service annually, with a peak of twelve and thirteen during the years 191-188. From that we will have to wait until 149 to see once again more than ten legions in service.

It seems likely, however, that by the late 180s the number of Roman citizens per legion was increased to 5,500 men between infantry and cavalry. This increase did not affect the legions during the years 192-188, but came to apply during the later period in which the Roman government was probably trying to standardize the number of legions in service.

The real importance of this change, though, was not in terms of burden, but the way it affected the ratio between citizens and *socii* in the army. Although in the early second century, the proportion of allied troops probably increased, perhaps as punishment for those allies who defected during the Carthaginian invasion.⁴⁶⁵ With the increase of Roman troops in the legions in the late 180s the ratio of allied soldiers

⁴⁶⁵ Livy, XXXII. 8 on the army of 198: the consular army in Macedonia was composed by two legions with a supplement of 3,300 Romans and 5,500 allies (for a total of 12,300 citizens and 15,700 *socii*); the praetorian armies were reinforced

started to decline until, by the 170s, a sort of parity was reached. As we will examine later, the figures on the strength of the army show that although there were fewer legions in service after the Second Punic War, this was compensated for by a general increase in the number of allies under arms. Between the 180s and the Third Macedonian War, on the other hand, there was a sort of standardization of the number of legions in service, which, at the same time, led to an increase in the number of Roman citizens under arms.

Finally, the census figures display an increase in the population during the first half of the second century, showing that between 200 and 164 the population was able to recover from the losses of the Second Punic War. Also, victorious campaigns were followed by a significant increase in land availability for both citizens and non-citizens that allowed a major programme of colonization and land distribution.

* The recruitment system of the second century

For the second century recruitment procedures we still rely on Polybius and his description of the *dilectus* in book VI. Yet, by this period, the citizen body was larger and more dispersed: Roman soldiers not only came from Rome itself and its nearby communities, but also from the countryside and colonies in Central and Southern Italy, and, later, from Northern Italy. It is difficult to imagine that the men could assemble and be deployed tribe by tribe on the Capitol for the very simple reason: there was no space for so many men on the Capitoline Hill, a plateau of 25 acres/100 sq. meters – part of it occupied by the temple of Jupiter.⁴⁶⁶ We might suggest that Polybius is describing how recruitment was organized when the army was composed by the four consular legions alone. From the second half of the third century – if not earlier – the assembly took place on the Campus Martius outside the city.⁴⁶⁷

exclusively by allied contingents (4,300 *socii* in Sicily, and 2,200 in Sardinia). Livy, XXXIII. 43 shows that the consular army (9,000 Romans) sent to Spain was supported by 15,800 allies. Livy, XXXVI. 2 mentions that both the Spanish province in 191 received reinforcements for a total of 3,300 men each, but 2/3 of these should have been allies, while 1/3 citizens (so 4,400 *socii* and 2,200 citizens in total). Livy, XXXVII. 2: one of the consular armies of 190 was formed by two legions (9,000 Romans) and 15,600 allies, two legions were sent to Apulia-Bruttium and supported by 15,600 *socii*; finally, one legion plus 10,400 *socii* was stationed in Etruria.

⁴⁶⁶ Polybius, VI. 19: “On the appointed day, when those who are liable for service have arrived in Rome and assembled on the Capitoline Hill”. Richardson, *A New Topographical Dictionary of Ancient Rome* (Baltimore, 1992), 68-70 on the Capitoline Hill; he reminds us that it is the smallest of the seven hills of Rome.

⁴⁶⁷ Dio fr 109. 5 and Varro *RR*, III. 2. 4; Vegetius, I. 10: “Therefore the ancient Romans [...] selected a Campus Martius next to the Tiber in which the youth might wash off sweat and dust after training...”; Richardson, *Topographical Dictionary*, 65-67 on the Campus Martius. Livy, III. 69 and Dionysius Hal., VIII. 87, on the contrary, indicate that soldiers were gathered in the Campus Martius already in the fifth century, but it is clear that they are just assuming that the process of recruitment in

The key issue is how many citizens would actually appear at a *dilectus*. Nicolet reminds us that there were two different types of levy in Rome: a regular one adopted in normal circumstances, the normal annual *dilectus*, in which the forms and requirements of the census were followed, and a levy *en masse* (*tumultus*) in which all the city's manpower was called up in the event of an unexpected enemy offensive.⁴⁶⁸ This last did not apply in the second century and the *dilectus* likely became a *supplementum*, replacing those discharged or lost or simply providing reinforcements.⁴⁶⁹ New legions were recruited for new campaigns, but it seems likely that there was considerable variation from year to year in the demand for new recruits. For example, Livy shows that total number of Roman citizens who were recruited for service in Spain in 182 were 4,200, while the following year (181), only 3,200 were needed.⁴⁷⁰

If the number of citizens annually involved in the *dilectus* was limited (or at least was flexible), we can try to understand how the process worked in the second century. We can use as an example the levy of 194: by the end of it, eight legions were ready for duty (meaning that a total of 76,800 men divided between 36,000 Romans and 40,800 *socii*).⁴⁷¹ Livy also suggests that the *dilectus* was a slow process: the eleven days long levy of 169 was considered faster than usual, so a regular *dilectus* could take two weeks.⁴⁷²

The *dilectus* began with a summons in the form of an edict, warning citizens to assemble on a date usually fixed 30 days ahead (*a trinundinum*); Festus (92 L) says that a red flag was flown from the Capitol during that interval as a reminder. Once the citizens began assembling, the next step consisted of investigating all the exemption claims, the eligibility of the potential recruits, and then the enrolment took place. Nicolet suggests that 'the recruits were not brought on to the strength at once: the consul ordered them to report at a given date to their respective enrolment centers, generally in the area where each man was

use during their times was the same as it was in the fifth century, like to suggest that late Republican/early Imperial procedures had their origins in the Early Republic.

⁴⁶⁸ Nicolet, *The World of the Citizen*, 93

⁴⁶⁹ Nicolet, *The World of the Citizen*, 97

⁴⁷⁰ For 182 see Livy, XL. 1; for 181 see Livy, XL. 18

⁴⁷¹ Livy, XXXIV. 43: "When the matter of the provinces was raised, [...] the senate decided that the two consuls should have Italy as theirs, since the wars in Spain and Macedonia were now finished. [...] It was decided that no new army be transported to Macedonia, and that the army already there be brought back to Italy by Quinctius and demobilized. The army with Marcus Porcius Cato in Spain was likewise to be disbanded. The two consuls were to have Italy as their province and were authorized to enroll two city legions so that, after demobilization of the legions decreed by the senate, there should be a total of eight Roman legions."

⁴⁷² Livy, XLIII. 15

to serve'.⁴⁷³ For example, in 193 the new recruits had to present themselves at Arretium within ten days, and in 191, for the war against Antiochus, at Brundisium.⁴⁷⁴

It seems unlikely that all the soldiers were amassed in Rome. Some may have gathered on the Campus Martius, but would have departed when ready and in the meantime, more recruits gathered by magistrates. Such a diffused system suggests that it would have been extremely easy for soldiers to avoid the draft or to disappear having been drafted.

To return to the recruitment of 194, at the end of it Livy lists eight legions in service between Italy, the two Spanish provinces, Sicily and Sardinia. Four legions were disbanded (two from Macedonia and two from Spain), four were still in service while four were newly recruited. Since Livy says that the consuls were authorized: "...to enroll two city legions...", it is possible that it means that only two legions – for a total of 9,000 Roman citizens – were formed by men recruited among the citizens residing in Rome. The other two legions may have been gathered elsewhere.

Due to the great distance from Rome at which many citizens lived, decentralized and local enlistment became essential during the second century. It seems likely that Rome's recruiting magistrates entrusted local authorities to enlist soldiers or sent magistrates, called the *conquisitores*, to fix the quotas to be drawn from different towns and localities.

The experience of *municipia* in levying their own troops was probably used to organize the enlistment of Roman soldiers from the colonies. In places where citizens were settled without recognised local self-government, *praefecti iuri dicundo* (or tribal officials) were usually employed. This procedure is explained by Brunt:

'Rome sent out to them to furnish contingents to the legions in much the same way as allied cities were required to send a stated number of men *ex formula togatorum*. Some of these *municipia* had in fact been *socii* before, and their incorporation in the Roman state should not have deprived them of the machinery for raising troops at Rome's demand. Nor need anything

⁴⁷³ Nicolet, *The World of the Citizen*, 102

⁴⁷⁴ For the case of Arretium in 193, see Livy, XXXIV. 56; for the case of Brundisium in 191, see Livy, XXXVI. 2

have changed, when they were later raised to full citizen rights'.⁴⁷⁵

Luuk de Ligt suggests that:

'We must surely suppose that the same procedure was followed in the case of self-governing municipia and that the requirement of universal attendance applied only to citizens resident in or near the city of Rome. This means that the levy involved two stages: a first stage in which recruits were enlisted by the local authorities and a second one in which the men thus selected were distributed among the legions. Polybius' description refers solely to the second stage'.⁴⁷⁶

The levy of the *socii* probably followed a process not very different from that described by Polybius.⁴⁷⁷ The entire procedure was conducted by their own communities and recruits were assigned to the *praefecti sociorum* sent by Rome whereupon the allied contingents moved to the areas designated places to meet the legions.⁴⁷⁸

Regarding military age, our best source is Gaius Gracchus' *lex militaria* that established that citizens younger than 17 could not be recruited in the army, suggesting that Roman citizens were normally recruited when they were older – probably 19 or 20.⁴⁷⁹ Livy shows that in the aftermath of Cannae, boys (17 or over) were enlisted in the army, but this was clearly an emergency. Boys between 17 and 20 may

⁴⁷⁵ Brunt, *Italian Manpower*, 631

⁴⁷⁶ De Ligt, 'Roman Manpower and Recruitment', 116

⁴⁷⁷ Polybius, VI. 21 on the levy of the allies.

⁴⁷⁸ The expansion of the Republic also brought a new matter completely absent in Polybius: the recruitment of soldiers in the provinces (here recruitment was probably organized in a similar fashion to that of citizens who lived in colonies or the Italian allies, and interested both Roman citizens and non-Romans in the same way. They were probably recruited by local magistrates nominated by the governors, and perhaps served as garrison troops. Livy, XXXV. 2 regarding Spain, and Livy, XXXV. 23 regarding Sicily clearly says in both cases that Romans and non-Roman joined the legions. We have to consider that recruiting soldiers in an overseas province, sending them to Rome, and then sending them elsewhere was a waste of time and resources). During the course of the second century, migration to the overseas provinces became progressively more important, and it is only natural that the military activity of the provinces also involved the Romans and Italians who moved there: during the Spanish war between the 150s and 130s, Roman armies were formed by troops recruited in Italy, but we should not exclude that some were actually recruited in the provinces. Stephen Dyson, *The Creation of the Roman Frontier* (Princeton, 1985), 196 says that the treaty that Gracchus signed with the Spaniard communities also included military service of the locals in the Roman legions as auxiliaries. The chronicle of the following wars, on certain occasions, strongly suggests the presence of Spanish auxiliaries in the Roman armies.

⁴⁷⁹ Plutarch, *G. Gracchus*, 5

have served as a reserve.⁴⁸⁰ According to Cicero, all citizens had a period of training called *tirocinium* before their military service.⁴⁸¹ There is no indication, however, that the *tirocinium*, as a rule, started at 17.

The well-known case of the veteran Ligustinus could give us an insight: when he spoke during the call-up of the new army to fight the Macedonians in 171, he said he was more than 50 years old, meaning he was born around 220 (or before). Since he states that he became a soldier in 200, at the time of the Second Macedonian War, it shows that he began military service aged 20 or slightly older.⁴⁸²

The recruitment system appears to have allowed for volunteering, notably from returning soldiers: these men could have been still under arms when they were re-recruited.⁴⁸³ Ligustinus had short gaps between his campaigns, serving from 200 to 197, from 195 to 194, and from 191. A man who fought numerous campaigns would be discharged from his obligation to the state becoming an *emeritus*, but he could serve as a volunteer.⁴⁸⁴ Ligustinus volunteered for service in Gracchus' army in 181, though he probably had already enough years of service to be exempted. If a veteran who had completed his full service wanted to be enlisted again, he was free to do so. As a consequence, returning soldiers and volunteers might swell the numbers of men in a legion, as during the Third Macedonian War, but there were no clear rules about the size of a legion: previous examples showed that legions slightly larger than usual were accepted.⁴⁸⁵

Polybius tells us that soldiers had to serve between 10 and 16 years before they were “free” of any obligation towards the state. But there is no indication that they were forced to serve 16 consecutive years; actually, as Nicolet says: ‘During the second century every effort was made to keep the average period of service down to six years. This was relatively easy for operations in Cisalpine Gaul or in the East, much less for Spain’.⁴⁸⁶ We also have an example from Livy, who mentions a decree of the Senate in 184 regarding the discharge of soldiers in Spain who served for a very long period of time, as if such

⁴⁸⁰ Livy, XXII. 57

⁴⁸¹ Cicero, *pro Cael.*, V. 11

⁴⁸² Livy, XLII. 34

⁴⁸³ See de Blois, *Roman Army and Politics*, 8

⁴⁸⁴ Nicolet, *The World of the Citizen*, 97

⁴⁸⁵ See Livy, XXIX. 25 on Scipio's larger legions for the African campaign.

⁴⁸⁶ Nicolet, *The World of the Citizen*, 113

long period of service were unusual by the second century.⁴⁸⁷ In this way, it seems plausible that Ligustinus' case (different, yet short periods of service) would appear to have been more common rather than excessively long periods (more common in the Imperial army). Thus, the overall argument that prolonged periods of military service were one of the main problems during the Republic starts to weaken.

Volunteer enlistment occurred during the Second Punic War in 205 when Scipio, while organizing his African expedition, enrolled 7,000 volunteers.⁴⁸⁸ In 200 the consul P. Sulpicius Galba recruited volunteers among Scipio's veterans, 2,000 of whom joined his army.⁴⁸⁹ In 198, veterans of the Spanish and African campaigns enrolled in Flaminius' army.⁴⁹⁰ Later, in 190, Scipio enlisted volunteers for the campaign against Antiochus: between Romans and allies, 5,000 men joined the army.⁴⁹¹

The most important instance of voluntary enlistment during the first half of the second century is the Third Macedonian War of 171. Since everyone expected an easy victory and considerable booty, large numbers volunteered. The attraction of this war was such that even soldiers and centurions up to the age of fifty were eager to re-enlist.⁴⁹² However, the normal *dilectus* had taken place, and probably gathered the numbers the commanders needed. The volunteers were not rejected since, as Brunt says: 'Recruiting officers must have preferred soldiers who were anxious to enlist, and especially men who had already seen service and were well trained and experienced fighters'.⁴⁹³ It may also have been politically disruptive to reject those eager to serve. The volunteers were used to slightly increase the manpower and the strength of each of the legions to 6,300 citizens each. Livy tells us that all the other legions were kept at normal levels of manpower.

Because of the poor conduct of the Third Macedonian War, the initial enthusiasm of the citizens diminished; in late 170, the senate organized a commission to look into the condition of the army in Greece. When in 169 new forces were needed, no one came forward. We are told that as a consequence of this failure to recruit, the praetors re-established the old rigour of the original *dilectus*, and it was so

⁴⁸⁷ Livy, XXXIX. 38

⁴⁸⁸ Livy, XXVIII. 45-46

⁴⁸⁹ Livy, XXXI. 8

⁴⁹⁰ Livy, XXXII. 9

⁴⁹¹ Livy, XXXVII. 4

⁴⁹² Livy, XLII. 31

⁴⁹³ Brunt, *Italian Manpower*, 393

efficient that great crowds of men under forty-six joined the army.⁴⁹⁴ Livy attributes the reluctance to an unwillingness to serve under certain ‘politically ambitious’ consuls.⁴⁹⁵ This instance suggests that the magistrates normally relied on voluntary recruitment.

* Legions and manpower from 200 to 164

In terms of manpower, legions in service between 200 and the late 180s were probably the same as described by Polybius (so formed by 4,500 Romans and 5,100 *socii* per legion). Although during the later stages of the Second Punic War the sources indicate the presence of larger legions, these were used in exceptional circumstance – as in the case of Scipio’s African army.⁴⁹⁶ From the end of the 180s we have the first indications that the standard number of Roman citizens in every legion had been permanently increased to 5,500 men.⁴⁹⁷

One possibility to explain this change might be that the Roman army was already using cohorts rather than maniples as their main tactical units.⁴⁹⁸ Traditionally, the cohortal system is attributed to the reforms of Marius, however, the sources mentioned possible formations in battle similar to that of the cohorts, especially in operations in Spain.⁴⁹⁹ Cohorts required more men than maniples, and, tactically, were more flexible and thus more suited to the main enemies that Rome was facing.⁵⁰⁰ Nevertheless, the sources still mention the use of the *triplex acies* formation up until the 130s and even during the Jugurthine War

⁴⁹⁴ Livy, XLIII. 14-15: once conscription was used for the levy of 169, the draft was completed in only eleven days.

⁴⁹⁵ Livy, XLIII. 14

⁴⁹⁶ Livy, XXIX. 25 on Scipio’s larger legions.

⁴⁹⁷ Livy, XL. 36

⁴⁹⁸ Bell, ‘Tactical Reform of the Roman Republican Army’, in *Historia* 14 (1965), 409; Keppie, *The Making of the Roman Army* (1984), 63

⁴⁹⁹ Christopher Matthew, *On the Wings of Eagles: the Reforms of Gaius Marius and the Creation of Rome’s First Professional Soldiers* (Newcastle, 2010), 29-37. On cases of possible uses of cohorts in battle before Marius see Livy, XXXIX. 31 (185) and XL. 40 (180). On the tactics used by the Spaniards there are numerous references by Appian: on the case of Mummius in 155 see Appian, VI. 10. 56; Appian, VI. 10. 58 on the case of Galba (151). Appian, VI. 11. 63 on Vetellius’ army in Farther Spain that was ambushed by Viritathus (147). Appian, VI. 11. 64 on the defeat of Caius Plautius the following year (146). Appian, VI. 11. 67 on Fabius Maximus’ Servilianus campaign of 142. Also, on the description of the Lusitanians’ fighting tactics, see Caesar, *BC*, I. 44

⁵⁰⁰ Matthew, *On the Wing of Eagles*, 29 and Keppie, *The Making of the Roman Army*, 64 on the strength of maniples and cohorts.

(112-105).⁵⁰¹ Secondly, cohorts imply uniform military equipment among legionaries.⁵⁰² This would have been possible only through state involvement in the production and distribution of military equipment, as discussed above.⁵⁰³

Instead, we might simply suggest that the Romans adapted their legions according to the requirements of the campaigns, and the enemies they were facing. Increased the strength of the legions would have given them more options against the different type of enemies they were facing, from well-organized armies to guerrilla forces. There seems to be no reason why a Polybian legion could not operate with slightly increased numbers.

The following table shows the number of legions, citizens and *socii* in service from 200 to 172:

YEAR	N°OF LEGIONS	CITIZENS	SOCH	SOURCE
200	6	27,000	30,600	Livy, XXXI. 8
199	6	27,000	30,600	Livy, XXXII. 1
198	8	36,000	40,800	Livy, XXXII. 8
197	6	27,000	30,600	Livy, XXXII. 28
196	10	45,000	51,000	Livy, XXXIII. 25
195	10	45,000	51,000	Livy, XXXIII. 43
194	8	36,000	40,800	Livy, XXXIV. 43
193	8	36,000	40,800	Livy, XXXIV. 53
192	10	45,000	51,000	Livy, XXXV. 20
191	12	54,000	61,200	Livy, XXXVI. 1-2
190	13	58,500	66,300	Livy, XXXVII. 2
189	12	54,000	61,200	Livy, XXXVII. 50
188	12	54,000	61,200	//
187	8	36,000	40,800	Livy, XXXVIII. 42
186	8-10	36,000-45,000	40,800-51,000	//
185	8	36,000	40,800	Livy, XXXIX. 23
184	8	36,000	40,800	Livy, XXXIX. 38

⁵⁰¹ Sallusts, *Jug.*, 50. 1, 100. 2 and 103. 1 mentions light-armored soldiers, so it is plausible that he is talking about the *velites*; also, *Jug.* 50. 4 says: "...they were being wounded only from a distance and given no chance of striking back or engaging in hand-to-hand combat." so he is talking about Roman troops without long-range weapons, probably the *triarii* (as *velites*, *hastati* and *principes* were all armed with *pila*). Keppie, *The Making of the Roman Army*, 63 reports that archeological evidence for Scipio Aemilianus' camps around Numantia seems to show the presence of *hastati*, *principes* and *triarii*.

⁵⁰² Matthew, *On the Wing of Eagles*, 34: "The merging of the maniples into cohorts removed the *velites* from the formation, and subsequently removed a large proportion of the legion's missile capabilities. To counter this loss, all legionaries were uniformly armed with sword (*gladius*), large shield (*scutum*) and javelins (*pila*). The removal of the spear as the principal offensive weapon of the *triarii* indicates that the uniform equipping..."

⁵⁰³ Keppie, *The Making of the Roman Army*, 64 argues that the lowering of the financial requirement for military service was the main cause for the passage from maniples to cohorts.

183	8	36,000	40,800	Livy, XXXIX. 45
182	8-10	44,000-55,000	40,800-51,000	Livy, XL. 1
181	8-10	44,000-55,000	40,800-51,000	Livy, XL. 18
180	8	44,100 (55,100)	54,200 (66,800)	Livy, XL.35-36 ⁵⁰⁴
179	//	//	//	//
178	//	//	//	//
177	9	49,500	45,900	Livy, XL. 8
176	8	44,000	40,800	Livy, XLI. 14
175	//	//	//	//
174	8	44,000	40,800	Livy, XLI. 21
173	8	44,000	40,800	Livy, XLII. 1
172	8	44,000	40,800	Livy, XLII. 10

As a consequence of the increasing range of Rome's campaigns, more legions were needed in the second century than in the third.⁵⁰⁵ Most commonly, there were eight legions in service, usually divided between the four consular legions, two for the two Spanish provinces, and two more deployed where needed. When it was necessary, the number of legions was increased, as in the period 191-188.

From the late 180s the number of Roman citizens per legion increased with the addition of 1,000 infantrymen per legion, increasing from 4,200 to 5,200 men – while the cavalrymen remained 300 per legion. In the decade between 182, the first time that this increase is mentioned by Livy, and 172 recruitment increased from 36,000 to 44,000 men distributed across the normal eight legions.

As in earlier periods, the sources barely mention the allies, and it is not clear if they were involved in these changes as well. Velleius claims that the *socii* were twice as numerous as the citizens by the time of the Social War.⁵⁰⁶ Nevertheless, other sources suggest an increasing Roman presence in the army from the late 180s. Livy shows us that a sort of parity was reached already in the early 170s, while, progressively, it becomes more common to see more Roman citizens than allies in the armies from the mid-late 170s.⁵⁰⁷ In the previous table, in order to simplify calculations, we have suggested that the

⁵⁰⁴ Livy, XL. 35-36 clearly says that in 180 there were eight legions in service, but before he shows the formation of the army: each consul received two legions (11,000 Romans and 15,800 *socii* each), while there were praetors in Sicily and Sardinia (so one legion each), then there were complications regarding the veterans in the Spanish provinces, and the army to be assigned there. It was then decided to send one legion (5,600 citizens plus 7,300 allies) in Hither Spain, but the commander was free to enlist volunteers among the veterans of the previous army up to two legions of 11,000 Romans and 12,600 *socii*. Finally, although not mentioned, it is possible that one standard legion was assigned to Farther Spain.

⁵⁰⁵ Regarding the legions in service in 201 see Livy, XXX. 40-41

⁵⁰⁶ Velleius, II. 15. 2

⁵⁰⁷ Livy, XLI. 9 on the army of 178-177: both consuls received two legions of 5,500 Romans each plus 12,600 allies, for a total of 22,000 Romans and 25,200 *socii* in the consular armies. Also, one legion (5,500 Romans) supported by 5,250 *socii*

number of *socii* did not change after 182. It seems likely that the number of allies in the army from this moment on was not standardized, but varied according to Rome's requirements.

The next table continues the previous by showing the number of legions, citizens and allies in service at the time of the Third Macedonian War (171-168).

YEAR	N°OF LEGIONS	CITIZENS	SOCII	SOURCE
171	10	56,600	57,600	Livy, XLII. 31
170	//			//
169	8	45,600	40,200	Livy, XLIII. 12 ⁵⁰⁸
168	10	56,600	53,400	Livy, XLIV. 21 ⁵⁰⁹
167	8	44,000	40,800	Livy, XLV. 16

Thanks to Livy, we know exactly the strength of the legions that fought against Perseus, and this allows us to count the total number of Roman citizens and *socii* in service during this period with more precision than before.

In 171, with the start of the third war against Macedonia, ten legions were in service across the Mediterranean; Livy shows that, because of the initial popularity of this conflict, each of the two legions that fought against the Macedonians were stronger than usual, and counted 6,300 citizens and – probably

was sent to Spain. Altogether there were 27,500 citizens and 30,450 allies that year in the legions. Livy, XLI. 21 on the recruitment of 175-174: one new legion of 5,300 men (presumably citizens only) was sent to Corsica; both the Spanish provinces received 3,150 Roman soldiers and 5,300 allies (so, in total 6,300 Romans and 10,600 *socii*). Finally, two new legions with regular strength (11,000 Romans) supported by 10,600 allies were also formed. On this occasion we can notice that there were more citizens under arms (22,600) than *socii* (21,200). Livy, XLII. 1 on the army of 173: “two new legions of Roman citizens apiece and 10,600 men from the Latin and Italian allies...” he probably means that the consular armies were formed by four standard legions (22,000 citizens) and 21,200 *socii*. Also, only Roman citizens were sent to Spain (3,200 men) and Sardinia (1,500 men). We can see that, on this occasion, the number of citizens (26,700) once again surpasses the number of allies (21,200). Finally, Livy, XLIII. 12 on the levy of 170-169: the first consul received the two Macedonian legions (6,300 Romans each with the same number of *socii*, so 12,600 citizens and 12,600 allies), the second consul two standard legions (11,000 citizens) supported by 10,600 allied troops, the rest of the army was made by four legions (22,000 Romans) and 17,000 *socii*. In total, that year, there were 45,600 Roman citizens in the army compared to 40,200 allies.

⁵⁰⁸ “In the case of Macedonia the decision was for 6,000 Roman infantry, 6,000 of the Latin and allies, 250 Roman cavalry, 300 allied cavalry; the old soldiers were to be discharged so that in each Roman legion there would not be more than the 6,000 infantry and 300 cavalry.”

⁵⁰⁹ “His instructions were to enlist 7,000 Roman citizens and 200 cavalry; to call upon 7,000 infantry and 400 cavalry from the Latin and Italian allies; and to write to Gnaeus Servilius, who had Gaul as his province, to conscript 600 cavalry. Licinius was told to send this army to his colleague in Macedonia at the very first opportunity. There were to be no more than two legions in the province; but they were to be brought up to full strength so that they would have 6,000 infantry and 300 cavalry; the remaining infantry and cavalry were to be posted in garrisons.”

– 8,400 allies for a total of 12,600 Romans and 16,800 *socii*.⁵¹⁰ The rest of the army was likely formed by normal-strength units, eight legions of 5,500 Romans and 5,100 *socii* each for a total of 44,000 citizens and 40,800 allies.⁵¹¹ Adding the two larger Macedonian legions, we can see that, in 171, 56,600 Roman citizens and 57,600 *socii* were in service.

In 169 eight legions were in service. Livy states that the number of men in service for the Macedonian conflict did not change, so we still have two legions of 6,300 citizens each, and, in this case, two *alae* of the same number (6,300 men each).⁵¹² If the rest of the army was formed by six legions and *alae*, for a total of 33,000 citizens and 30,600 allies in service, adding the troops in Macedonia would increase to a total of 45,600 Romans and 43,200 *socii*.

To all these numbers, we need to add the citizens serving with the navy. From the end of the Second Punic War, the fleet was reduced, possibly to a total number of crewmembers of 6,800.⁵¹³ The rowers are not included in any manpower count because they were not Roman citizens. As Polybius suggested, citizens who owned less than 400 *drachmae* were eligible for service in the navy, along with *proletarii* and freedmen, but as crewmembers, not rowers.⁵¹⁴ Brunt says:

‘The rowers were certainly not merely drawn from Roman (or allied) slaves and *proletarii*. It is attested that Scipio impressed captives in Spain – and probably his father and uncle did the same. The Sicilians had naval obligations to Rome in terms of furniture of men rather than ships. Local recruitment was also considered’.⁵¹⁵

⁵¹⁰ Livy, XLII. 31 says that only the legions in Macedonia were stronger. All the others, including the other two consular legions, kept normal manpower levels.

⁵¹¹ Livy, XLII. 31: the army of 171 was divided between the four consular legions, two in Sicily, two in Sardinia and two in Spain.

⁵¹² Livy, XLIII. 12: “In the case of Macedonia the decision was for 6,000 Roman infantry, 6,000 of the Latin and allies, 250 Roman cavalry, 300 allied cavalry; the old soldiers were to be discharged so that in each Roman legion there would not be more than the 6,000 infantry and 300 cavalry.”

⁵¹³ Michael Pitassi, *The Roman Navy* (2012), 61; Johannes H. Thiel, *Studies on the History of Roman Sea-Power in Republican Times*, (Utrecht, 1946), 183

⁵¹⁴ Regarding the recruitment of *proletarii* and freedmen for the navy, see Livy, XXIV. 11: “This was the first time on which a Roman fleet was manned with crews raised from private funds. [...] Those who had between 50,000 and 100,000 asses (or if it subsequently reached that level) were required to supply a single sailor, along with six months’ pay. Anyone assessed above 100,000 and up to 300,000 was to supply three sailors, along with a year’s pay. Above 300,000 and up to a million it was five sailors, and above a million it was seven. Senators were to supply eight sailors, with a year’s pay.” For the fleet of 210 see Livy, XXVI. 35: “The consuls therefore proclaimed that private individuals should (as had been done before) provide the oarsmen, along with their pay...”; Brunt, *Italian Manpower*, 668

⁵¹⁵ Brunt, *Italian Manpower*, 669

Pitassi suggests that during the second century the fleet was changing: it became more common to rely on the support of strong contingents from the navies of allied state, such as Rhodes or Pergamum, and to recruit from the Eastern Mediterranean. During the Syrian War, 115 ships were in service: 77 of these took part in the naval operations against Antiochus divided among 25 *quinqueremes* in the Aegean, 50 new ships with Livius, and 2 under the command of Regillus.⁵¹⁶ The rest of the fleet was divided between 18 ships that were protecting the Adriatic (mainly from pirates) and 20 off Sicily to prevent any Carthaginian involvement.⁵¹⁷

During the Third Macedonian War the fleet was, according to Livy, only 40 Roman *quinqueremes* which were sent to the Aegean, where they were supported by 20 Pergamese “decked vessels” and 5 of the same type offered by Prusias, king of Bithynia.⁵¹⁸ This fleet was supported by 7 light vessels from the Italian towns, and 76 *lembi* from Western Greece.

Pitassi suggests that these mixed fleets show the Hellenization of the Roman navy by the second half of the second century:

‘With the progressive dissolution of the Hellenistic navies, an increasing number of Greeks, many of them almost certainly the former personnel of those navies and now unemployed, enlisted with the Roman navy’.⁵¹⁹

The constant reduction of units of the navy is not a surprise since Roman naval supremacy was unchallenged in the Western Mediterranean. The Aegean could be controlled by the Eastern allies.⁵²⁰

To conclude this section on the Roman fleet and its crews, we discuss their payment. We have no indication regarding the pay of crewmembers. Our only suggestion comes from Livy, and his description of the extraordinary measure taken by the Roman government that instructed wealthy citizens to fund

⁵¹⁶ Regarding the 25 *quinquereme* in the Aegean area see Livy, XXXV. 37; for the ships assigned to Livius see Livy, XXXVI. 42

⁵¹⁷ For the numbers of the Roman fleet during the Syrian War see Thiel, *Roman Sea-Power*, 258-264

⁵¹⁸ Livy, XLIV. 10; Thiel, *Roman Sea-Power*, 378 suggests that the numbers were probably very similar the previous years.

⁵¹⁹ Pitassi, *The Roman Navy*, 61-62

⁵²⁰ Livy, XXI. 17

the formation of the fleet of 214 and 210.⁵²¹ He says that citizens had to provide supplies and, also, payment for the sailors, but he doesn't mention to how much their payments amounted to. Maybe they received as much as infantrymen (3 *asses* per day). It is possible that the payment of the crews was divided among the communities from which they came, and in case of Roman citizens – although, as we argued, they were probably a minority – they were simply paid by the state, just like the legionaries.

* Demographic impact of military service

We have a good run of census figures for the early second century.⁵²² Recruitment was at a much lower level than in the Hannibalic War: with the only exception of 189, there were less than ten legions in service until 146. The table shows the number of both Romans and allies, assuming that the number of citizens in the legions increased to 5,500 after 180.

DATE	CENSUS FIGURE	LEGIONS IN SERVICE	ROMANS IN SERVICE	<i>SOCII</i> IN SERVICE
204	214,000	19	85,500	96,900
194	243,704	8	36,000	40,800
189	258,318	12	54,000	61,200
179	258,294	8	44,000	40,800
174	269,015	7	38,500	35,700
169	312,805	8	44,000	40,800
164	337,022	6	33,000	30,600

From the data on the table, we can notice that in spite of constant military activity, the population progressively recovered from the losses of the Second Punic War in roughly one generation. There are several qualifications:

i) The Campanians were re-included in the census of 189. According to Livy, in 216 the Campanians were able to raise 30,000 infantry and 4,000 cavalry after Cannae and everything else that had happened.⁵²³ It is possible that by 189, their numbers were somewhat higher than 34,000 (perhaps as many as 50,000).

⁵²¹ See Livy, XXIV. 11 on the private funding for the fleet of 214; regarding the fleet of 210 see Livy, XXVI. 35

⁵²² Sources for the census figures: for 204 see Livy, XXIX. 37; for 194 see Livy, XXXV. 9; for 189 see Livy, XXXVIII. 36; for 179 see Livy, *Per.* 41; for 174 see Livy, XLII. 10; for 169 see Livy, *Per.* 45; for 164 see Livy, *Per.* 46

⁵²³ Livy, XXIII. 5

ii) In 188, the Italian communities of Formiae, Fundi and Arpinum were granted full citizenship.⁵²⁴ It is possible that other communities also received full Roman citizenship. Formiae, Fundi and Arpinum are all located in Latium Novum, and it is hard to believe that more communities of this central area of Roman Italy were not granted full citizenship. Regarding their numbers, and consequential impact on the census figures, we have no information. It seems possible that these communities altogether counted between 10,000 and 15,000 citizens.⁵²⁵ We should believe that they were included in the census of 179.

iii) It seems possible that legions overseas at the time of the census were not counted in the published figures. Rosenstein suggests that we use a “corrected count” by adding those missing citizens.⁵²⁶

iv) A persistent problem is the under-registration of citizens. Lo Cascio suggests that up to 70% of the adult male population may have remained unregistered, but this seems exaggerated.⁵²⁷ For example, in 194 the census figures suggested a total number of 243,704 Roman citizens. If these were only 30% of the total population, 568,642 citizens did not register that year, meaning that in 194 there were 812,346 Roman male citizens in total (and we are not considering the Italians). It is very difficult to plausibly estimate the level of un-registration which almost certainly varied considerably.

As we will show in the next chapter, the level of under-registration was connected with the popularity of specific campaigns. The first half of the second century was characterized by wars against the Hellenistic kingdoms, conflicts that allowed soldiers to gather considerable wealth, so we should believe that under-registration was generally lower than normal.⁵²⁸ Campaigns against the Ligurians or the Spaniards in second half of the second century may have not encouraged registration in the census.

The following table adjusts for soldiers overseas.

⁵²⁴ Livy, XXXVIII. 36

⁵²⁵ Formiae and Fundi are both mentioned by Strabo, V. 3. 6, but not in terms of population.

⁵²⁶ Nathan Rosenstein, *Rome and the Mediterranean*, 266

⁵²⁷ Elio Lo Cascio, ‘Recruitment and the Size of the Roman Population’, in ed. Scheidel, W., *Debating Roman Demography* (2001), 167-168

⁵²⁸ Livy, XLII. 32: “Licinius mustered veteran centurions and soldiers as well, and large number volunteered since they saw that those who had served in the earlier Macedonian War and against Antiochus in Asia had become wealthy men.”

DATE	CENSUS FIGURES	LEGIONS AND CITIZENS IN SERVICE OVERSEAS	CORRECTED CENSUS FIGURES ⁵²⁹
194	243,704	4 legions (18,000 citizens)	261,704
189	258,318	7 legions (31,850 citizens) ⁵³⁰	297,988
179	258,294	4 legions (22,000 citizens) ⁵³¹	295,294
174	269,015	7 legions (38,500 citizens)	307,515
169	312,805	Between 4 and 6 legions (up to 26,900 citizens) ⁵³²	339,705
164	337,022	2 legions (11,000 citizens)	348,022

The corrected count allows us to estimate the burden of military service between 194 and 164, as displayed in the following table:

DATE	CORRECTED CENSUS FIGURES	LEGIONS/CITIZENS IN SERVICE	% OF CITIZENS IN SERVICE
194	261,704	8 (36,000 citizens)	13.7%
189	297,988	12 (54,000 citizens)	18%
179	295,294	8 (44,000 citizens)	15%
174	307,515	8 (44,000 citizens)	12.5%
169	339,705	8 (44,000 citizens)	13%
164	348,022	6 (33,000 citizens)	9.4%

These figures give us a clearer impression for the general military burden of the first half of the second century. Pressures were much reduced from the period of the Hannibalic War. Also, as we will see, the recruitment rates of this period appear stable, with the exception of the period 191-188.

- Military service and population from 200-160s

⁵²⁹ The corrected census figures include not only soldiers overseas, but the crewmembers of the navy (when we have information on them), Campanians, new communities who received full Roman citizenship.

⁵³⁰ Livy, XXXVII. 50 shows that in 189 the soldiers in service in the seven legions (out of twelve) overseas were divided among the reinforcements (7,300 men) sent to the Asian legions – still in service since the previous year –, one legion in Sicily (4,500 men), two legions in the Spanish provinces reinforced by 2,050 men, for a total of 11,050 Romans in service in Spain.

⁵³¹ Regarding the year 179, by this point, the number of Roman citizens per legion was 5,500; furthermore, we don't have Livy's chronicle, so we can assume that four legions out of eight, for a total of 22,000 citizens, were in service overseas – probably divided between the two Spanish legions, one in Sicily and one in Sardinia.

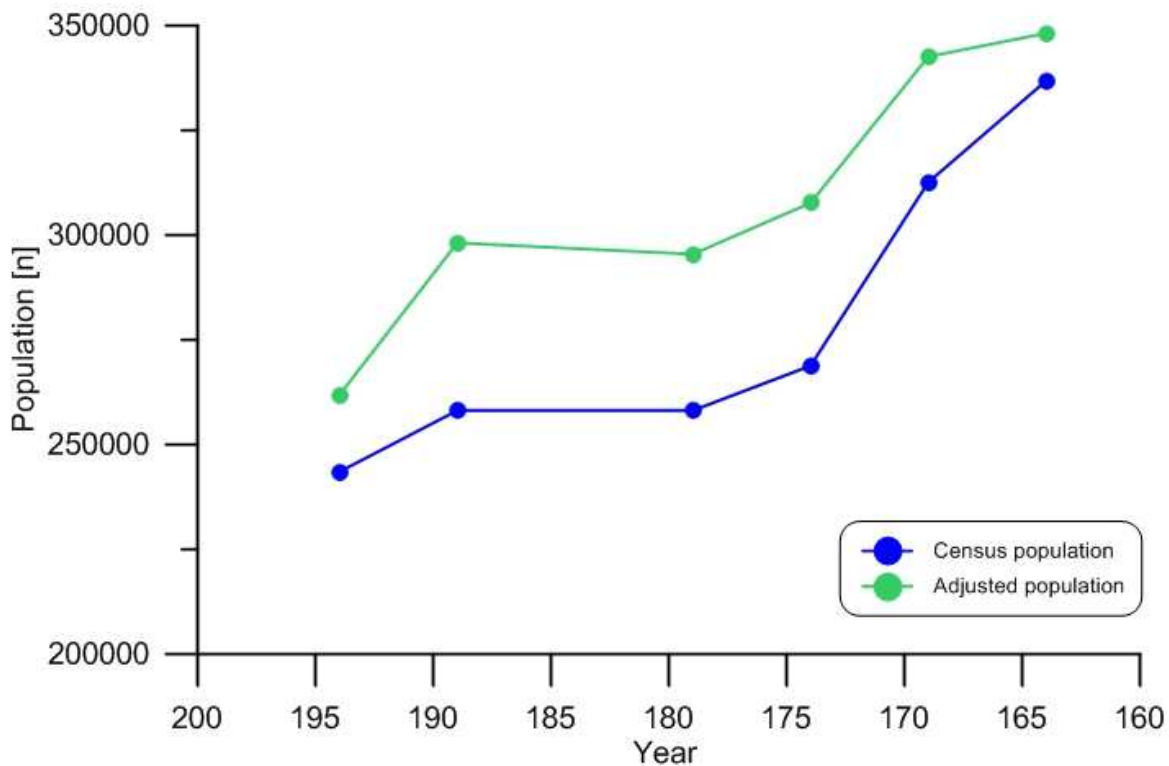
⁵³² Livy, XLIII. 12 says that in 169 of the eight legions in service, between four and six were overseas. Two new legions were sent to Macedonia, the two in service in Spain were the same of the previous year, but they received reinforcements for a total of 3,300 Romans. Livy mentions that two more legions were recruited, but he doesn't say where they were deployed

All the second century conflicts were much shorter, required fewer legions and, very important, war-losses were far fewer. The military burden on the population fell from 35-40% of the available manpower in 204 to a little more than 13% in 194. Such a reduction of the military activity certainly had consequences for the Romano-Italian population and its economy.

Using “corrected” figures – that, as said before, include various elements that probably were not counted by the sources: soldiers overseas, crewmembers of the navy, etc... – we can propose a general increase in the total number of Roman citizens. This, together with the reduction of military activity after the Second Punic War, meant that the burden of military service was very different: in 194 it is possible to suggest an increase from 243,704 to 261,704 citizens. This situation continued for the rest of this first part of the second century: the census of 189 was taken in the middle of the Syrian War (191-188), the period of most intense military activity since the Second Punic War. Not only seven legions (for a total of 31,850 men) were in service overseas, but we also have information regarding the fleet (115 ships were in service, for a total of 7,820 crewmembers). With all these data we might increase the number of Roman citizens from 258,318 to 297,988.

In 179 only four legions were in service overseas (for a total of 22,000 citizens), but during this period we also have noticed the inclusion of new communities that received full Roman citizenship. We are not sure of their number, but in 188 they probably did not count more than 15,000 citizens altogether. In 174 the number of Roman citizens registered in the census was 269,015. Since seven legions were in service outside of peninsular Italy (38,500 citizens), it is possible to increase the total number of citizens to 307,015. The census of 169 registered 312,805 citizens, but between four and six legions were in service overseas (so, between 15,900 and 26,900 citizens). We also know that, during the Third Macedonian War, 40 Roman *quinqueremes* were in service (so a total of 2,720 crewmembers). The census figures could be increased to a maximum of 342,425 citizens. Finally, the census figures of 164 show a population of 337,022, and since only two legions were in service overseas (11,000 citizens), the number of citizens could be increased to 348,022.

The following graphic displays the development of the Roman citizen population in the period between 194 and 164 showing the difference between the numbers in the census figures, and how these number might change if other factors are added, like soldiers in service overseas, crewmembers of the navy, communities that received full citizenship, etc.



Although the numbers vary the census figures and the corrected figures are showing the same key element: there was an overall strong increase of Roman citizens during these three decades.⁵³³ However, the period was not marked by constant growth. New populations of perhaps 60,000 account for most of the growth, certainly until 169. From 174, we see a moderate increase of perhaps 34,910 citizens.

* The second half of the second century

After the defeat of Macedonia, Rome did not see any serious warfare for more than a decade. The main areas where the legions were employed were in Cisalpine Gaul – mainly against the Ligurians –, but occasionally in Dalmatia and Transalpine Gaul, Sardinia on certain occasions, and Spain, but these were minor actions. It was only by the mid/late 150s that the Republic faced new challenges when its forces

⁵³³ In general, the census figures are showing an even a greater growth in the long term: in thirty years (from 194 to 164) there was an increase of 93,318 citizens (from 243,704 to 337,022). The corrected figures are showing an increase of 86,318 citizens during the same period (from 261,704 to 348,022).

were required on different fronts: after a brief conflict with the Dalmatians in Illyria, a new rebellion started in Spain in 153, while, at the same time, from 150, troops were in Macedonia and Greece and, in 149, in Africa against Carthage for the third and final time.

The new Spanish war proved to be unpopular among Roman citizens. The census figures show a slight decline of the number of registered citizens: according to Livy, in the census of 159, 328,316 Roman citizens were registered, but, over the following decades, the number of citizens varied until, in 136, the census showed that the total number of citizens registered was of 317,933.⁵³⁴ It seems likely that the unpopularity of the war in Spain was the main cause of this decline. In 151, troops destined for Spain protested and many citizens claiming exemptions, until Scipio Aemilianus gave the lead and was followed by other young men in volunteering.⁵³⁵

DATE	CENSUS FIGURES	LEGIONS IN SERVICE	CITIZENS IN SERVICE
159	328,316	4	22,000
154	324,000	6	33,000
147	322,000	10	55,000
142	328,442	7	38,500
136	317,933	7/8	38,500-44,000
131	318,823	5	27,500
125	394,736	7	38,500

The loss of Livy's history after 167 deprives us of a detailed account of the events of the second half of the second century. We can make no viable estimate for the number of *socii* employed in this period, though it seems likely that the ratio between citizens and allies in the army changed decade after decade and likely varied campaign by campaign.

Traditionally, the consuls received two legions each, while a praetor was assigned to a single legion; this is a staple of the Roman army. However, by looking to certain campaigns of this period (Spain, in particular, but Sicily as well, and also Africa), and to the number of legions and soldiers deployed, it appears impossible to explain them by following the classic model of the Roman army. While it is likely

⁵³⁴ Sources for the census figures of this period: Livy, *Per.* 47 (159); Livy, *Per.* 48 (154); Livy, *Per.* 54 (142); Livy, *Per.* 56 (136); Livy, *Per.* 59 (131); Livy, *Per.* 60 (125)

⁵³⁵ For the exemptions from military service, see Polybius, XXXV. 4; regarding Scipio Aemilianus and his role in the recruitment of new troops for Spain, see Polybius, XXXV, Livy, *Per.* 48 or Appian, VI. 9. 49.

that, during the levy, legions were still assigned to their commanders in the customary fashion (two per consul, one per praetor), the conflicts in Spain, as we will see shortly, led to an accumulation of troops that allowed consuls or proconsuls to command armies of up to five legions.⁵³⁶ The Third Punic War represents a clear break from the traditional recruitment system, since the consuls received command over an army of seven new legions.

* Spain: Numantia and the Lusitanians (154-133)

The wars in Spain were not a continuous conflict. The Numantine War had two distinct phases: the first one (from 153 to 151) ended when the Numantines surrendered after Claudius Marcellus' successful campaign.⁵³⁷ Then, after eight years of peace – and cooperation⁵³⁸ –, the Belli, Titthi and Arevaci were convinced by Viriathus to break from their alliance with Rome. From 143 to 133 the Romans fought a long campaign characterized by numerous difficulties. The Lusitanian War can also be divided into two parts: operations before the rise of Viriathus (155-150) and the campaign against Viriathus (148-140).

Our main – and only – source for the events in Spain during the second century is Appian. As we have mentioned earlier in the thesis, one of the main problems of Appian's chronicle is the absence of the *socii*. There are a couple of exceptions, as we will see, where it seems he is mentioning them, but for the most part it appears that Appian did not understand how the army of the Republic was organized (especially regarding the role of the allies). As a consequence, the number of men reported in his chronicle are never easy to read, and the same argument is extended to the casualties. For the most part, Appian simply says *Ῥωμαίων* (Romans), so we are not sure if he is talking about Roman citizens only, or to every figure we should add the *socii* or even auxiliaries – as we know that the Spaniards were recruited by the Romans.⁵³⁹

Finally, regarding the number of troops in service, Appian appears to have used a standard legionary strength of 6,000 men instead of the 5,500 men suggested by Livy. Being our main source, we should use his figures in order to understand better the number of legions in service during the campaigns in

⁵³⁶ Brunt, *Italian Manpower*, 426-434

⁵³⁷ Appian, VI. 9. 48-50 for the campaign of Claudius Marcellus of 152 and 151.

⁵³⁸ Appian, VI. 9. 63: during the campaign of 147 against the Lusitanians, after being ambushed and defeated by Viriathus, the Romans retreated to a place called Carpessus. Here they received 5,000 men from the Belli and Titthi who were immediately sent against the Lusitanians.

⁵³⁹ Dyson, *Roman Frontier*, 196

Spain, but we may use Livy's figures in moving from the number of legions to the number of men in service.

An example of the difficulties caused by relying exclusively on Appian can be seen immediately from the beginning: in 153 Rome sent to Numantia an army of 30,000 men under the command of consul Quintus Fulvius Nobilior.⁵⁴⁰ Since Appian doesn't mention the composition of this army, we have to suppose that we are probably looking at two, maybe three legions (so between 12,000 and 18,000 Romans) plus *socii* (18,000 or 12,000).

The same confusion occurs when we are looking at the casualties: the Romans were ambushed, and after two battles were forced to retreat with heavy losses.⁵⁴¹ According to Appian, in the first battle 6,000 "Roman citizens" lost their lives, while 4,000 more "men" died in the second. The first figure would seem to refer to a legion, thus we should actually assume that losses were actually higher if we were to count in allied casualties. Regarding the losses after the second clash Appian is vaguer, so we should assume that, between Romans and allies, 4,000 men were killed. As a consequence, we have a total of 10,000 losses between citizens and *socii*, plus more not cited.⁵⁴²

Nobilior was replaced by the new consul Claudius Marcellus, who took command of the army and brought reinforcements for a total of 8,000 infantry and 500 cavalry (probably one legion of 6,000 citizens plus 2,500 allies) to replace the losses of the previous campaign.⁵⁴³ Assuming that the allies were included in the initial army, we can reasonably assume that Marcellus' force was three legions supported by *socii*. He was able to make progress until, by 151, the Belli, Titthi and Arevaci surrendered.⁵⁴⁴ This ended the first part of the Numantine War.⁵⁴⁵

⁵⁴⁰ Appian, VI. 9. 45

⁵⁴¹ Appian, VI. 9. 46: "This disaster happened on the day on which the Romans are accustomed to celebrate the festival of Vulcan. For which reason, from that time on, no general will begin a battle on that day unless compelled to do so."

⁵⁴² On the first clash, see Appian, VI. 9. 45 while for the second clash Appian, VI. 9. 46. The overall losses should be like 6,000 Romans + a not mentioned number of allies + 4,000 Romans and allies, so for a total of 10,000 men. By increasing the total casualties, it would explain better why the Romans cursed this day and forbade to start battle: if to the 6,000 citizens we add more losses (Italians and Spanish auxiliaries), and then the 4,000 men (Roman and allies) who died in the following battle, this is one of the most serious defeats since the Second Punic War. Finally, we have to mention that the Celtiberians paid a high price for their victory: at least 8,000 men – including their commander Carus – were killed by the Romans.

⁵⁴³ On Marcellus' arrival and his reinforcements, see Appian, VI. 9. 48

⁵⁴⁴ For Marcellus' campaign, see Appian, VI. 9. 48

⁵⁴⁵ Appian, VI. 9. 50-51

- Lusitanian War part 1 (155-150)

Shortly before the beginning of the operations against Numantia, raiders from Lusitania started to attack Farther Spain. In 155 the Roman garrison (one legions, so perhaps up to 12,000 men between citizens and allies) under the command of praetor Calpurnius Piso was defeated, forcing Rome to send reinforcements under the command of the praetor L. Mummius.⁵⁴⁶ He faced the Lusitanians for the following years (154-153) with alternating fortune until he was able to win a major victory and, once he returned to Rome, celebrated a triumph for his achievements.⁵⁴⁷

Appian's description of the campaign of 155-153 is not clear and requires some clarification. First of all, regarding losses, we cannot rule out the possibility that when Appian mention 6,000 men he means a legion in its entirety, so Romans and allies. So, in the case of Piso, it is possible that his army was completely destroyed. More plausibly, he commanded one legion (supported by one *ala sociorium*) and lost half of his troops (between Romans and allies), or it's Appian's way of saying that the Romans had heavy losses.

When Mummius arrived in 154 with the reinforcements, he was immediately attacked by the Lusitanians. He defeated them, but lost 6,000 men in the process and, according to Appian, was left with 5,000 soldiers.⁵⁴⁸ This would suggest us that, when he left for Spain, Mummius had a total of 11,000 men under his command, so probably one legion plus allies. As in the case of Piso, however, it is possible that the 6,000 losses refer to a whole legion, implying that Mummius actually was assigned to two legions (but this seems unlikely, as we said before). The fact that, according to Appian's narration, soon after his army counted 9,500 men when he counterattacked, might suggest that he had divided his forces before the battle, and that 4,500 men of his army were left behind (maybe as a reserve or garrison). These joined the 5,000 survivors, forming the force mentioned by Appian, thus suggesting an original army of 15,500 men (so probably one legion, one *ala* and auxiliaries). Finally, we have to consider the possibility that those 4,500 men were the remains of Piso's army, and they joined forces under Mummius' command.

⁵⁴⁶ Appian, VI. 10. 56 on the beginning of the Lusitanian War

⁵⁴⁷ On Mummius' campaign, see Appian, VI. 10. 57

⁵⁴⁸ Appian, VI. 10. 56

After Mummius' victory, operations against the Lusitanians continued under the responsibility of praetors, first Marcus Atilius, who made positive progresses, and then Servius Sulpicius Galba. He defeated the Lusitanians, but also suffered serious losses (7,000 men), and was forced to retreat. He gathered reinforcements before he resumed his campaign and then, together with Lucullus from Hither Spain, proceeded to invade Lusitania.⁵⁴⁹

We can reconstruct the manpower as follows: when Atilius became the new commander, he received an army that counted between 9,500 to 14,500 men, so it is possible that he brought one legion with his as reinforcement, increasing the number of men under his command to 21,500 or 26,500 between Romans and *socii*; this would seem to have been an army of around three legions. After his successful campaign, he was followed by Galba who suffered 7,000 losses, but was able to continue his campaign with 20,000 allies. Because of the large number, and the fact that Appian specifically refers to them as "*summachos*" (allies), the most plausible solution is that Galba recruited Spanish auxiliaries, the fastest way to gather reinforcements instead of waiting for new regular troops from Italy.⁵⁵⁰ So, by the time he resumed the operations, Galba's army counted between 14,500 and 19,500 regular troops (Romans and *socii*) reinforced by 20,000 auxiliaries.

Between 151 and 150, the Romans started a double invasion of Lusitania combining the forces of Lucullus from Hither Spain, and those of Galba from Farther Spain.⁵⁵¹ After a massacre, military activity in Farther Spain decreased for some years.⁵⁵²

By 150 the situation in Spain was relatively quiet, although in a couple of years the rise of Viriathus would start new and more challenging war. After five years of fighting in both Hither and Farther Spain, we might estimate the number of losses using the figures suggested by Appian. Between citizens, allies and Spanish troops, the Romans lost at least 13,500 men during the first campaign against Numantia.⁵⁵³

⁵⁴⁹ See Appian, VI. 10. 58 for the campaigns of Atilius and Galba, and VI. 10. 59 on the double invasion of Lusitania by Lucullus and Galba.

⁵⁵⁰ Appian, VI. 10. 58

⁵⁵¹ Appian, VI. 10. 59 on the invasion of Lusitania.

⁵⁵² Appian, VI. 10. 59-60; he describes very well Galba's conduct: "Thus he avenged treachery with treachery, imitating barbarians in a way unworthy of a Roman."

⁵⁵³ Mainly because of the unsuccessful campaign of Nobilior in 153: 10,000 lost their lives in the defeat of the day of Vulcan (probably more since Appian says that 6,000 Roman citizens died in the first clash while he does not mention any casualty among the allies and auxiliaries, while on the second battle, 4,000 men – so Romans, *socii* and Spaniards – were killed). The other 3,500 casualties are simply an estimate of the losses caused by the small encounters and the wastage of that winter.

The five years of war against the Lusitanians caused the death of 19,000 soldiers.⁵⁵⁴ So, in total, at least 32,500 men (between Romans, allies and auxiliaries) were killed in the first five years of the Spanish wars.

- Lusitanian War part 2: Viriathus (148-140)

In 148 the Roman commander in Farther Spain was praetor Gaius Vetilius. According to Appian he fought a force of 10,000 Lusitanians with an army of the exact same size, but he also says that the praetor brought new troops from Italy and that soldiers were already in Spain by the time of his arrival.⁵⁵⁵ However, if he had only 10,000 men (so 6,000 Romans and 4,000 allies) it means that he did not bring significant reinforcements, and that there were not many troops in that part of Spain by 148. It seems more likely that the 10,000 was only a part of the force available to Vetilius and that he had two legions at his command.

He supposedly defeated the Lusitanians, but their new leader, Viriathus, managed to flee and reorganize his forces.⁵⁵⁶ He soon ambushed the Romans and kill 4,000 men (Vetilius was among the losses) and forced them to retreat.⁵⁵⁷ Vetilius' successor, the praetor Caius Plautius, was not more successful: he arrived in Spain with an army of 10,000 infantrymen and 1,300 cavalrymen (probably one legion and one *ala sociorum* of 5,300 men), but was defeated by Viriathus on two occasions. Forced to retreat, he was unable to stop the Lusitanians from ravaging the region of Carpetania (central Spain).⁵⁵⁸

The conclusion of the wars in Greece and Africa allowed an increase of the military effort in Farther Spain. The new commander was the consul Fabius Maximus Aemilianus who decided to recruit young men instead of the veterans of the Greek and African campaigns. He arrived in Spain with an army of

⁵⁵⁴ The only figures for losses given by Appian regarding the Lusitanian War between 155 and 150 are the following: 6,000 men were lost in the invasion of 155; Mummius lost 6,000 men when he pursued the Lusitanians in disorder; finally, in 151, Galba lost 7,000 men in the same way.

⁵⁵⁵ Appian, VI. 10. 61: "...those who escaped from Lucullus' and Galba's treachery assembled together, about 10,000 in number [...] Gaius Vetilius came out against them from Rome, bringing with him another army and taking over the soldiers in Iberia, having in all about 10,000 men."

⁵⁵⁶ Appian, VI. 9. 61-62 on the rise of Viriathus.

⁵⁵⁷ Appian, VI. 9. 63: the Belli and Titthi sent 5,000 troops to support the Romans, but they were attacked and annihilated by Viriathus.

⁵⁵⁸ Appian VI. 9. 64 on the invasion of Carpetania and Plautius' defeats.

15,000 foot and 2,000 horse (so probably two legions – 12,000 Romans – and 5,000 *socii*).⁵⁵⁹ At the end of 145 he began a successful campaign that lasted until the winter of 144 when he returned to Rome.⁵⁶⁰

In 143 the new Roman commander, the praetor Quinctius Pompeius Aulus defeated the Lusitanians, but lost 1,000 men in the process. Viriathus detached the Arevaci, Titthi and Belli from their allegiance to the Romans. This marked the beginning of the second phase of the Numantine War that lasted until the destruction of the city in 133.⁵⁶¹ The campaign of 142-141 was led by the consul Fabius Maximus Servilianus who brought to Spain a new army of 19,600 men between Romans and *socii* (so 12,000 citizens and 7,600 allies), and required reinforcements from Numidia.⁵⁶² In 141 Servilianus started a new campaign: after initial successes, he pursued Viriathus, but his army was surprised while besieging the town of Erisana. The Romans were forced to retreat and then surrendered to Viriathus who imposed terms on the troops.⁵⁶³

This settlement, however, did not last long. In 140 the consul Q. Servilius Caepio considered the treaty “unworthy of the dignity of the Roman people”, and the war resumed.⁵⁶⁴ After receiving command over the strong five legions army left by Servilianus, Caepio started a new campaign forcing Viriathus to retreat.⁵⁶⁵ The resistance of the Lusitanians, however, started to crumble after the assassination of their leader and soon after Caepio mopped up the remaining resistance putting an end to the Lusitanian War.⁵⁶⁶

- Numantia part 2 (143-133)

⁵⁵⁹ Appian, VI. 11. 67: “He brought two new legions from Rome and some allies...”

⁵⁶⁰ On Fabius Maximus, his army and his campaign, see Appian, VI. 9. 65

⁵⁶¹ Appian, VI. 9. 66

⁵⁶² Appian, VI. 9. 67 on Servilianus’ campaign: on the road to the city of Itucca he was attacked by the Lusitanians, but secured an expensive victory, losing at least 3,000 men.

⁵⁶³ See Appian, VI. 9. 68-69 regarding Servilianus’ campaign of 141 and the treaty with Viriathus.

⁵⁶⁴ Appian, VI. 9. 70

⁵⁶⁵ By the time Caepio was nominated commander of the troops in F. Spain (140), the Romans had five legions in the region. Consul Aemilianus (145-144) had three legions (Appian, VI. 11. 65); he was followed by praetor Quinticus (143) who commanded the same army. In 142 consul Servilianus brought two additional legions increasing the Roman military presence in F. Spain to five legions (Appian, VI. 9. 67). He kept his command until 140 when he surrendered to Viriathus and was then replaced by his brother Caepio. The key element is that Servilianus’ army was not destroyed by the Lusitanians: the Romans ended up being trapped in a really dangerous place, so, to avoid annihilation, Servilianus surrendered and accepted Viriathus’ terms (Appian, VI. 9. 69). Appian, VI. 10. 70 further suggests that Caepio’s army was far stronger than Viriathus’: “Caepio took the town of Arsa, which Viriathus left, and, having far more forces, caught up with Viriathus himself...” and “Viriathus therefore, reckoning that he should not engage because of the small number of his forces...” implying that the Lusitanians’ manpower was probably limited at this point because of the continuous warfare.

⁵⁶⁶ Appian VI. 9. 74-75 on the end of the Lusitanian War.

The second phase of the Numantine War was triggered by the revolt of Viriathus. Appian gives figures for the number of troops involved in this war only once before the arrival of Scipio. The first Roman commanders in Hither Spain were the consul Q. Caecilius Metellus in 143-142, and his successor Quintus Pompeius Aulus (consul in 141); they commanded a well-trained army of 32,000 men (probably three legions – one already in the province by the time of Metellus’ arrive, and two brought by the consul – for a total of 18,000 legionaries and 14,000 *socii*). On the other hand, Appian tells us that the Numantines were able to raise an army of only 8,000 men.⁵⁶⁷

After Metellus defeated the Arevaci, the campaign went badly, and Appian’s chronicle becomes vaguer. In 134 it was decided to elect Cornelius Scipio as the new commander, hoping that the conqueror of Carthage would put an end to this war. He decided to gather only 4,000 volunteers, as Appian explains: ‘he did not recruit an army by a levy, since there were many wars going on and because there were plenty of soldiers in Spain’.⁵⁶⁸ According to Appian, by the time of the final siege, Scipio’s army counted a total of 60,000 men (divided between Roman citizens, allies, Spanish auxiliaries and a contingent of Numidians under the command of Jugurtha).⁵⁶⁹ The previous time that Appian gave us figures for the strength of the Roman army in Hither Spain, was when the consul Pompeius took command of Metellus’ army of 32,000 in 141.⁵⁷⁰ It seems likely to think that the Romans had successively reinforced the army – as they did against the Lusitanians – when a new consul was assigned to the province.

From Appian’s description of both campaigns, it seems that Rome sent more troops when necessary, but not every year. New troops were certainly sent to Hither Spain between 141 (the passage between Mummius and Pompeius who, almost for sure, did not bring soldiers with him) and 134 (appointment of Scipio as new commander). The most plausible period for this reinforcement was between 137 and 135 when there were four consular commanders in three years. New legions could have been sent in 137 when Mancinus was replaced by Aemilius Lepidus, or with Furius in 136 to replace the troops lost by his predecessor in the unsuccessful campaign against the Vaccaei.

⁵⁶⁷ Appian VI. 13. 76

⁵⁶⁸ Appian, VI. 14. 84

⁵⁶⁹ Appian, VI. 15. 92: “The army, together with the native forces, now numbering some 60,000 men...” we have to consider the fact that each time a new commander reached the legions, he would probably require troops from the allied communities – as expected by Gracchus’ treaty.

⁵⁷⁰ For Scipio’s army in 134-133, see Appian VI. 14. 92; on the army of 141, see Appian, VI. 13. 76

Probably two new legions were brought to Hither Spain sometime before Scipio's command (134), so that five legions were in the province. The new troops sent to the province between 137 and 135 joined the three older legions still in service, and so Appian's figure of 60,000 men is perfectly clear. In his terms – legions of 6,000 men – we are looking at ten units of 6,000 men, simply translated into five legions plus *alae sociorum* supported by the Numidian contingent and native auxiliaries. However, we should consider that these legions were not at full strength after years of combat – as we said, part of them were in service for a long time –, and also, the strength of the allied contingents is not clear at all.

At the beginning of the chapter, we have argued that, in theory, citizens and *socii* supplied the same number of infantrymen to a legion, while in reality the allied contingents varied according to the situation and the needs of Rome. All the armies that we have listed above did not have this perfect balance between Romans and *socii*, so we must suppose that the Latin and Italian allies were less numerous than the citizens, and that the auxiliaries were a significant part of this army (of course there is no way to know how strong the Numidian contingent was).⁵⁷¹

DATE	LEGIONS IN HITHER SPAIN	LEGIONS IN FARTHER SPAIN
167-156	1	1
155	1	1
154	1	2
153	3/4	2/3
152	3/4	2/3
151	3/4	3
150	2	2
149	1	1
148	1	2
147	1	2
146	1	2
145	1	3
144	1	3
143	3	3
142	3	5
141	3	5
140	3	5
139	3	5
138	3	5

⁵⁷¹ We might look at Appian, VI. 10. 58 regarding the case of Galba: he managed to gather 20,000 Spanish allies to reinforce his army, so the Romans were able to recruit large number of auxiliaries when necessary. Also, Dyson, *Roman Frontier*, 191 suggests that Scipio's family had important connections with the local elites in the province, so that his presence as the commander allowed the Romans to gather more local troops.

137	3	5
136	5	5
135	5	2
134	5	1
133	5	1
132 onwards	1	1

* The Third Punic War (149-146)

In 149 the Republic declared war on Carthage for the third and final time. Appian tells us that both citizens and allies were eager to enlist in the army, especially because of the prospect of rich booty, thus allowing the consuls to command a force of 84,000 men between Romans and *socii*; if true, this was one of the largest army ever deployed by Rome – second only to the army of Cannae.⁵⁷²

These numbers are controversial. We might simply follow Brunt and reject these numbers as too vast, on the assumption that the army that besieged Carthage was made up of four legions, being under the command of both the consuls.⁵⁷³ Another option is suggested by Goldsworthy: indirectly, he refuses Appian's numbers as well, but says that the only way to accept them is to consider that he included every single person who followed the regular army (like servants, camp followers, and probably the rowers).⁵⁷⁴ Appian states that the fleet that transported the army to Africa was formed by 50 *quinqueremes* and 100 *hemiolii* (light vessels with one and a half banks of oars; probably called *liburna*).⁵⁷⁵ A *quinquereme* counted 68 crewmembers for a total of 3,400 for 50 ships, while the crew of an *hemiolia/liburna*, suggested to be similar to a bireme, varied between 18 and 26 men for a total of 1,800 or 2,600 crewmembers.⁵⁷⁶ The total number of men in service in the fleet – excluding the rowers⁵⁷⁷ – was between

⁵⁷² As we have seen, both Polybius and Livy suggested a larger army at Cannae (Polybius: 84,800; Livy: 87,200) – see p. 59-61 of this dissertation. However, Appian, VII. 3. 17 says that the Roman army at Cannae counted 76,000 men, making the army that besieged Carthage the largest deployed so far by the Republic.

⁵⁷³ Brunt, *Italian Manpower*, 684. Nevertheless, we have to consider that these legions were probably stronger than usual. We have seen cases of over strength legions (like Scipio's African expedition in 204 – see Livy, XXIX, 25 –, and especially during the Third Macedonian War – see Livy, XLII. 31 for the army of 171 and XLIII. 12 for the army of 169), and if the African legions were as strong as those deployed against Perseus, each of the four legions would have accounted for 6,300 men for a total of 25,200 Roman citizens. If we include allies, then we reach an army of 50,400 men. We might consider the possibility that these legions were even stronger, and suggest a strength of 6,500 men each for a total of 26,000 citizens (52,000 men if we include the same number of *socii*), but still well short of the 84,000 suggested by Appian.

⁵⁷⁴ Goldsworthy, *The Punic Wars*, 340

⁵⁷⁵ Appian, VIII. 11. 75

⁵⁷⁶ Pitassi, *The Navies of Rome*, 320-321

⁵⁷⁷ On the number of rowers see Pitassi, *Navies of Rome*, 320-321: a *liburna/hemiolia* counted from 24 to 34 rowers for a total between 2,400 and 3,400 for all the 100 ships; a *quinquereme* had from 56 to 124 rowers for a total between 2,800 to 6,200

5,200 and 6,000, but there is no way to know how many of those were Roman citizens. Finally, this army was likely supported by the Numidians, the main enemies of Carthage at the time. It seems that they offered their support to the Romans in Spain, but there is no way to know how strong their contingent was.⁵⁷⁸

However, Goldsworthy's solution should be rejected as well since it does not correspond to Appian's practice elsewhere and it is difficult to know how he could estimate camp followers. As he is the only source that gives us figures regarding this campaign, we cannot reject Appian lightly. There is little reason to assume that he would be more inaccurate on this campaign than in his description of, for instance, the Spanish Wars. In fact, since the war was a single campaign it must have been easier to reconstruct how many troops had been sent to the province.

During the chronicle of the Spanish campaigns, Appian mentions Roman armies very often, but, on the other hand, only on two occasions does he indicate a distinction between citizens and allies. The first case is the army of Fabius Maximus Aemilianus' army (145) – Appian mentions that he recruited allies as well –, and the following one is the army of Fabius Maximus Servilianus (142).⁵⁷⁹ For the most part, Appian simply states the strength of a specific army, thus we have to assume that he is describing the total number given by Romans and allies. Also, the wars in Spain showed the variability of the ratio between citizens and *socii* in the legions, and finally, it is difficult to believe that Appian actually included crewmembers or camp followers in his figures on the strength of the Roman army. So, regarding the Third Punic War we have two options: the most straightforward one is that he simply states that the Romans deployed in Africa seven legions (for a total of 84,000 men, adding the same number of *socii*). Alternatively, we might suggest that Roman citizens were more numerous than the allies, thus this army was formed by eight legions (so 48,000 legionaries supported by 36,000 *socii*).

* Macedonia and Greece (from 167 to 140s)

for all the 50 in service. The total number of rowers varied from 5,200 to 9,600, but the number of Roman citizens who served as rowers was so little that there is really no point in counting and including them.

⁵⁷⁸ Regarding the Numidian contingents in Spain, see Appian, VI. 9. 46; VI. 9. 67 and finally VI. 14. 89

⁵⁷⁹ On the army recruited by Fabius Maximus Aemilianus see Appian, VI. 9. 65; regarding Fabius Maximus Servilianus' case, see Appian, VI. 9. 65

Both Macedonia and Greece required the deployment of troops during the later second century, although not as many as those needed in the Western Mediterranean. After the defeat of Perseus, Rome did not occupy Macedonia and Greece; instead the senate sponsored local Greek leaders.⁵⁸⁰

In 150, Andriscus, who claimed to be Perseus' son, appeared on the scene.⁵⁸¹ After gathering support in Thrace, he invaded Macedonia and overpowered the republics established by Rome.⁵⁸² The senate sent the praetor P. Iuventius Thalna with one legion to confront Andriscus, but between 149 and 148 he was defeated and killed. The senate, at this point, sent a larger force of two legions under the command of praetor Q. Caecilius Metellus; his campaign was so successful that he took the cognomen Macedonicus. By the end of 149 Macedonia was recaptured, and the situation seemed to be stabilizing, but Metellus remained in the province with his army. Soon after, the situation in Greece started to deteriorate.⁵⁸³ In the spring of 146 the assembly of the Achaean League gathered at Corinth to declare war 'nominally against Sparta, but really against Rome'.⁵⁸⁴

Metellus decided to take care of the Achaeans by himself: he attacked Greece from Macedonia and crushed the Achaean army on different occasions before he stopped at the Isthmus offering peace to the Achaeans.⁵⁸⁵ In 146 a new commander, Mummius arrived and, after Metellus and his army went back to Macedonia, he took command of a new Roman force that amounted to 26,500 men. This army was supported by a contingent of Cretan archers and troops sent by Attalus of Pergamum, so we might suggest that Mummius' army counted two legions.⁵⁸⁶

⁵⁸⁰ Polybius, XXXII. 2. 5; one of these, Callicrates, was referred by Pausanias, VII. 11. 2 as "the most abominable wretch in all Greece".

⁵⁸¹ Polybius, XXXVI. 2. 10; on Andriscus' revolt also see Livy, *Per.*, 49-50

⁵⁸² Polybius, XXXVI. 2. 10; see also Diodorus of Sicily, XXXII. 15. 7

⁵⁸³ Pausanias, VII. 14. 1 on the Roman delegation and its demand that not only Sparta, but Corinth, Argos, Heraclea in Trachis and Orchomenus as well should be free to leave the Achaean League. On the Achaean's reaction see Polybius, XXXVIII. 3. 9

⁵⁸⁴ Polybius, XXXVIII. 3. 13; on the declaration of war, also see Pausanias, VII. 14. 5

⁵⁸⁵ On Metellus' victories, see Pausanias, VII. 15. 4 on the battle of Scarpheia, and VII. 15. 6 on the battle of Cheronea. On the following campaign see Pausanias, VII. 15. 8-9 on the capture of Thebes and VII. 15. 11 on the surrender of Megara and Metellus' final peace offers. Diaeus, leader of the Achaeans, refused any other solution than war as he feared that surrender would have brought the dissolution of the League. For this reason, he took emergency measures to keep fighting the Romans described by Polybius, XXXVIII. 3. 15

⁵⁸⁶ Pausanias, VII. 16. 1; it is plausible that this army counted two legions (12,000 Romans), supported by the *socii* (probably less than 10,000), and the other allies.

After the revolt of Andriscus it was decided that Macedonia was not safe without a permanent garrison, probably one legion.⁵⁸⁷ In 143 a pseudo-Perseus raised an army of 16,000 men, but was crushed by the army of the praetorian governor Licinius Nerva under the command of the quaestor L. Tremellius.⁵⁸⁸ Later, in 135, the praetor M. Cosconius gained success over the Scordisci in Thrace.⁵⁸⁹ Subsequently, the Roman military presence in the Balkans remained limited until 114 when Greece was invaded once again by the Scordisci. It is possible that the single garrison legion was reinforced for particular campaigns, especially if a consul took the field.

DATE	LEGIONS IN MACEDONIA	LEGIONS IN GREECE
167-150	//	//
149	1	//
148	2	//
147	2	//
146	2	2/3
145	1	2/3
144 onwards	1	//

* Northern frontier (168-120s)

During the second half of the second century, the Republic constantly maintained troops on its Northern borders – Northern Italy, Illyria and Southern Transalpine Gaul. Military operations often fell under the responsibility of the legions deployed in Cisalpine Gaul.

- Northern Italy

After the subjugation of the Gallic tribes in the late 190s and the associated campaigns against the Ligurians, Cisalpine was not threatened directly. We have notice of consular armies in Northern Italy in 167 and 166, when both consuls were active in the area.⁵⁹⁰ After these wars, we have progressively fewer

⁵⁸⁷ When Archathias, son of Mithridates, attacked Macedonia in 87, Appian, XII. 5. 35 says that the Roman force was small, suggesting that the province was still protected by a single legion.

⁵⁸⁸ Livy, *Per.*, 53

⁵⁸⁹ Livy, *Per.*, 56

⁵⁹⁰ Regarding 167, Livy, XLV. 16 says that both consuls (Q. Aelius and M. Iunius) were assigned to Northern Italy (Iunius against the Ligurians, Aelius in Cisalpine) and had two legions of 5,600 men each. In 166, consul Claudius Marcellus subdued tribes of Alpine Gauls, while consul Gaius Sulpicius Galus defeated the Ligurians (see Livy, *Per.*, 46). Both consuls celebrated triumphs for their successes in Northern Italy.

consuls active in this region – eight times before the Cimbric War.⁵⁹¹ This does not mean that Northern Italy remained unguarded. It is plausible that Roman troops were constantly assigned to Cisalpine Gaul as garrisons, and moved to the other areas under their responsibility – Illyria and Transalpine Gaul – when necessary, and here they might have been commanded by a consul.

Campaigns against the Ligurians are reported by the sources: in 159 consul M. Fulvius Nobilior was sent against them – and triumphed in 158 –; M. Claudius Marcellus, consul in 155, triumphed from Liguria in 154.⁵⁹² The main threat to Northern Italy before the Cimbric War was raids from Alpine tribes (like the Salassi⁵⁹³, Raeti, etc...), but the legions in Northern Italy also operated in Transalpine Gaul and Illyria. For these reasons, it was normal for the Republic to keep troops in Cisalpinga.

- Illyria

There was a brief war in Illyria in 167-168 (according to Appian it lasted only twenty days). In the meantime, Paulus, after he defeated Perseus, received from the senate the order to visit seventy Illyrian towns. He guaranteed to pardon them if they deliver him all the gold and silver they had. Ancius received a triumph where he displayed both Genthius and his son, while Livy states that this brief war gathered a great quantity of plunder.⁵⁹⁴

The Roman legions were back in Illyria in 156 under the command of consul Marcius Figulus.⁵⁹⁵ In 135 an army of 10,600 men under the command of consul Fulvius Flaccus was dispatched.⁵⁹⁶ In 129, the consul Gaius Sempronius Tuditanus, fought the Iapydes, an Illyrian tribe who lived near the Alps.

⁵⁹¹ Certain consular armies in Northern Italy are reported in 162, 159, 155, probably in 148 (because of the construction of the Via Postumia, but sources tell us that both consuls were in Africa occupied with the siege of Carthage), 143, 136, 118 and lastly in 115 when consul M. Aemilius Scaurus subdued Gallic and Ligurian tribes, and received triumph for these victories.

⁵⁹² Regarding Nobilior's campaign against the Ligurian see Thomas Broughton, *The Magistrates of the Roman Republic* (Atlanta, 1986), 445-446 and 448 regarding Marcellus' campaign.

⁵⁹³ Dio, XXII. 74: in 143 consul Appius Claudius attacked the Salassi, but was defeated at first. Later, however, he managed to defeat them (see Livy, *Per.*, 53).

⁵⁹⁴ On the war against Genthius see Appian, X. 2. 9. On the great plunder of this war see Livy, XLV. 43

⁵⁹⁵ Regarding the Dalmatian war see Appian, X. 2. 11

⁵⁹⁶ On the Illyrian campaign of 135 see Appian, X. 2. 10 and Livy, *Per.*, 56. Fulvius Flaccus probably had command over a single legion – despite being the consul of that year: if we use Livy's figures (5,500 men per legion), his army was made by one legion plus 5,100 allies. Using Appian's figures (6,000 men per legion), would simply suggest 6,000 citizens and 4,600 *socii*.

According to Livy, Sempronius was defeated at first, but later, assisted by the legate Decimus Iunius Brutus, defeated the Iapydes.⁵⁹⁷ Finally, in 119, L. Caecilius Metellus campaigned in the region.⁵⁹⁸

- Transalpine Gaul

The southern part of Transalpine Gaul was of great importance to the Republic as it was the land-link between Italy and the Spanish provinces. Roman had important connections with the city of Massalia since a first treaty was signed around 400, and cooperation during the Second Punic War reinforced this alliance.

In spite of the progressive conquest of Cisalpine Gaul, during the early second century Rome never intervened on the western side of the Alps. Things changed when, in 154, Massalia asked for help against the Ligurians living in the western side of the Alps. Two legions under the command of consul Q. Opimius were moved from Northern Italy and won a decisive success.⁵⁹⁹

In 125 Massalia was once again under attack and consuls Fulvius Flaccus (125) and Sextius Calvinus (124) were sent against them. By 124 there were probably four legions in the area (two under the command of consul Sextius Calvinus, and the previous two legions under proconsul Flaccus), and the Ligurians, the Salluvii and the Vocontii were defeated.⁶⁰⁰ At the end of this campaign Sextius established a colony at Aquae Sextiae. The conquest of Southern Transalpine Gaul (later Gallia Narbonensis) began in 122-121 under the consul Cn. Domitius Ahenobarbus (122), replaced the next year by Q. Fabius Maximus (121) who put an end to the campaign.⁶⁰¹ In 118 the colony of Narbo Martius was established on the western side of the new province.⁶⁰²

⁵⁹⁷ Regarding the campaign in Illyria of 129 see Appian, X. 2. 10 and Livy, *Per.*, 59

⁵⁹⁸ On the Dalmatian war of 119 see Livy, *Per.*, 62 and Appian, X. 2. 11

⁵⁹⁹ Polybius, XXXIII. 8-10 and Livy, *Per.*, 47

⁶⁰⁰ Flaccus' campaign is reported by Livy, *Per.*, 60; Appian, *BC*, I. 34 states that Flaccus was sent to Gaul by the senate so that his consulship would expire because of his strong encouragement on opening Roman citizenship to the Italian allies.

⁶⁰¹ On the campaigns of 123-121 see Livy, *Per.*, 61; Valerius Maximus, IX. 6. 3 and Strabo, IV. 1. 11. On the legions in service under consular and proconsular command, see Broughton, *The Magistrates of the Roman Republic*, 510-512 (for the years 125-124), 516, 520-522 (for the years 122-121)

⁶⁰² See Velleius, II. 8, Cicero, *pro Font.*, 5. 13 and Pliny, *NH*, III. 4. 32

DATE	LEGIONS IN CISALPINE GAUL	LEGIONS IN ILLYRIA	LEGIONS IN TRANSALPINE GAUL
167	4	//	//
166	4	//	//
165	1	//	//
164	1	//	//
163	1	//	//
162	2	//	//
161	1	//	//
160	1	//	//
159	2	//	//
158	1	//	//
157	1	//	//
156	//	2	//
155	//	2	//
154	//	//	2
153	1	//	//
152	1	//	//
151	1	//	//
150	1	//	//
149	1	//	//
148	2?	//	//
147	1	//	//
146	1	//	//
145	1	//	//
144	1	//	//
143	2	//	//
142	1	//	//
141	1	//	//
141	1	//	//
139	1	//	//
138	1	//	//
137	1	//	//
136	2	//	//
135	//	//	2
134	1	//	//
133	1	//	//
132	1	//	//
131	1	//	//
130	1	//	//
129	//	2	//
128	1	//	//
127	1	//	//
126	1	//	//
125	//	//	2

Estimating the number of legions deployed on the Northern frontier is not straightforward. Brunt suggests that the Republic always kept a consular army in Cisalpine Gaul and that, as a consequence, one consul was always assigned to Northern Italy. This lasted until 135; from 134 legions were deployed only when and where necessary.⁶⁰³ The next consular army in Northern Italy reported by the sources are the legions of M. Aemilius Scaurus in 115, but it is hard to believe that Rome left Northern Italy unguarded for more than twenty years.⁶⁰⁴

Contrary to Brunt, we should consider the possibility that Rome assigned a garrison force of one legion to Cisalpine Gaul in most years. Northern Italy was occasionally attacked by Alpine tribes, but they were not such a threat that required the presence of a consul every year. Consular campaigns would require larger armies, but there was no reason for a constant consular presence in Cisalpine other than the occasional brief campaigns in Illyria, and the expeditions in Transalpine Gaul.

* The islands (Sardinia and Sicily) (167-120s)

Finally, we have to look briefly at the deployment of troops in Sicily and Sardinia/Corsica during the second half of the second century.

Rome sent legions to Sardinia in order to suppress rebellions on two different occasions: between 163 and 162, and from 126 and 123. The first commander assigned to this task was consul M. Iuventius Thalna, who, however, died shortly after receiving news that the Senate had decreed a *supplicatio* for his successes.⁶⁰⁵ He was succeeded by the other consul, T. Sempronius Gracchus who maintained proconsular command the following year (162) before he was replaced by consul P. Cornelius Scipio Nasica.⁶⁰⁶ Sardinia remained calm until a rebellion in 126 forced Rome to send its legions under the command of consul L. Aurelius Orestes, who remained in Sardinia as proconsul until 123 when he returned to Rome to celebrate a triumph.⁶⁰⁷ We can suppose that, on both occasions, both armies were composed by two legions plus allies, as these campaigns probably did not need too much manpower.

⁶⁰³ Brunt, *Italian Manpower*, 432-433

⁶⁰⁴ On M. Aemilius Scaurus command see Frontinus, *Str.* IV. 3. 13 and Valerius Maximus, IV. 3. 5

⁶⁰⁵ See Valerius Maximus, IX. 12. 3

⁶⁰⁶ Valerius Maximus, I. 1. 3

⁶⁰⁷ On L. Aurelius Orestes' campaign, see Livy, *Per.*, 60 and Plutarch, *CG*, I. 4 and *CG*, II. 1-3

Sicily, on the other hand, did not need Roman troops until 139, when the sources mention the first slave uprising under the command of a Syrian slave named Eunus.⁶⁰⁸ By this time, the island did not have garrison troops and a praetor, L. Plautius Hypsaeus tried to stop the slaves with an army of 8,000 Sicilians, but was defeated.⁶⁰⁹ After him, other praetors faced the slaves until, in 134, the consul C. Fulvius Flaccus received command.⁶¹⁰ The first praetor who probably brought a legion was Lentulus (137), but he was defeated and the following year praetor Manlius took command (136). What is not clear is if Lentulus' legion was annihilated by the slaves or not. If this was the case, Manlius' new legion might have included the survivors – causing an accumulation as in Spain. After Manlius was defeated he was replaced by praetor Popilius Laenas and perhaps by 135 there were three weakened legions in Sicily.

Fulvius Flaccus likely had at least two legions plus *socii*, but there is the matter of the legions previously employed by the praetors. If those legions weren't destroyed, it is possible that Flaccus incorporated them into his army, thus increasing the manpower to five legions. In 133, the command passed to Calpurnius Piso, who may not have needed new troops. The following year, under the command of consul P. Rupilius, the slave revolt was finally subdued.⁶¹¹ Rupilius earned a triumph, and later reorganized the island under the *Lex Rupilia*.

DATE	LEGIONS IN SICILY	LEGIONS IN SARDINIA/CORSICA
163	//	2
162	//	2
161-140	//	//
139	//	//
138	//	//
137	1	//
136	2	//
135	3	//
134	5	//
133	5	//
132	5	//
131-127	//	//
126	//	2
125	//	2

⁶⁰⁸ On the First Servile War, see Keith Bradley, *Slavery and Rebellion in the Roman World, 140 B.C. – 70 B.C.* (London, 1989), 57-65

⁶⁰⁹ See Diodorus, XXXIV-V. 2. 18 and Florus, II. 7. 7

⁶¹⁰ After Plautius Hypsaeus, praetor Cornelius Lentulus (137) and Manlius (136) were defeated as reported by Florus, II. 7. 7 and Frontinus, *Strat.*, III. 5. 3. On the first consular command of the Servile War, see Livy, *Per.* 56

⁶¹¹ On the end of the First Servile War, see Livy, *Per.*, 59 and Diodorus, XXXIV-XXXV. 2. 20 describes the sieges of Tauromenium and Enna, and Rupilius' later successful campaign against robbers.

* Burden of military service during the period 167-125

Not having Livy makes it difficult to estimate the burden of military service. The following table shows the probable number of legions in service on the different fronts. There remains considerable doubt around some of the figures and the incomplete nature of the narrative sources for this period means that we could be underestimating Rome's commitments in some years.

DATE	SPAIN	NORTH	EAST	AFRICA	ISLANDS	TOTAL
167	2	4	//	//	//	6
166	2	4	//	//	//	6
165	2	1	//	//	//	3
164	2	1	//	//	//	3
163	2	1	//	//	2	5
162	2	2	//	//	2	6
161	2	1	//	//	//	3
160	2	1	//	//	//	3
159	2	2	//	//	//	4
158	2	1	//	//	//	3
157	2	1	//	//	//	3
156	2	2	//	//	//	4
155	2	2	//	//	//	4
154	3	2	//	//	//	5
153	4/5	1	//	//	//	5/6
152	4/6	1	//	//	//	5/7
151	4/6	1	//	//	//	5/7
150	4/6	1	//	//	//	5/7
149	2?	1	1	7/8	//	11/12
148	3	2?	2	7/8	//	14/15
147	3	1	2	7/8	//	13/14
146	3	1	4	7/8	//	15/16
145	4	1	3	//	//	8
144	4	1	1	//	//	6
143	6	2	1	//	//	9
142	8	1	1	//	//	10
141	8	1	1	//	//	10
140	8	1	1	//	//	10
139	8	1	1	//	//	10
138	8	1	1	//	1	11
137	8	1	1	//	1	11
136	10?	2	1	//	1	14?
135	7?	2	1	//	1	11?

134	6	1	1	//	2	10
133	6	1	1	//	2	10
132	2	1	1	//	2	6
131	2	1	1	//	//	4
130	2	1	1	//	//	4
129	2	2	1	//	//	5
128	2	1	1	//	//	4
127	2	1	1	//	//	4
126	2	1	1	//	2	6
125	2	2	1	//	2	7

Between 159 and 147 the number of citizens registered decreased from 328,316 to 322,000, a little more than 6,000 in a period of 12 years.⁶¹² In 142 the census shows that the number of citizens returned to the same levels of 159 (so it increased by around 6,000 in 5 years), but then, by 136, it decreased again: in 6 years the number of registered citizens decreased by 10,500, and stayed on these levels for a decade.⁶¹³ In 125, however, the census shows an enormous increase when the number of citizens increased from 318,823 to 394,736 (almost 76,000 in only 6 years).⁶¹⁴ It seems clear that these irregular population trends are caused by factors other than natal rates and mortality.

The general but small decline registered between the mid-150s and the late 130s was probably caused by the reluctance of citizens to serve in the army in Spain.⁶¹⁵ The Lusitanian War started in 155 and the Numantine War in 153, and what made these wars unpopular was the fact that not only they were dangerous, but non remunerative as well.⁶¹⁶ There are few cases of rewards (one of the few times that soldiers gathered some wealth is at the end of L. Mummius' campaign in 153), but they were rare, and, in the case of Mummius, his army suffered heavy casualties before he obtained the decisive victory. On other occasions, such as the campaign of 151-150 against the Lusitanians, the soldiers received very little while their commander kept all the rest for himself.⁶¹⁷

⁶¹² For the census figures of 159 see Livy, *Per.* 47; for 154 see Livy, *Per.* 48

⁶¹³ See Livy, *Per.* 54 for the census figure of 142, Livy, *Per.* 56 for the census of 136 and *Per.* 59 for the census of 131

⁶¹⁴ Livy, *Per.* 60 for the census of 125

⁶¹⁵ Rich, 'The Supposed Manpower Shortage', 317-318: "We hear of no resistance to the levy in the remaining years of the second century after the wars in Spain ended"; Luuk De Ligt, 'The Economy: Agrarian Change During the Second Century', in eds. Rosentein, N. and Morstein-Marx, R., *A Companion to the Roman Republic* (Malden, 2006), 602

⁶¹⁶ On the beginning of the Lusitanian War (155) see Appian, VI. 10. 56; on the beginning of the Numantine War (153) see Appian VI. 9. 44.

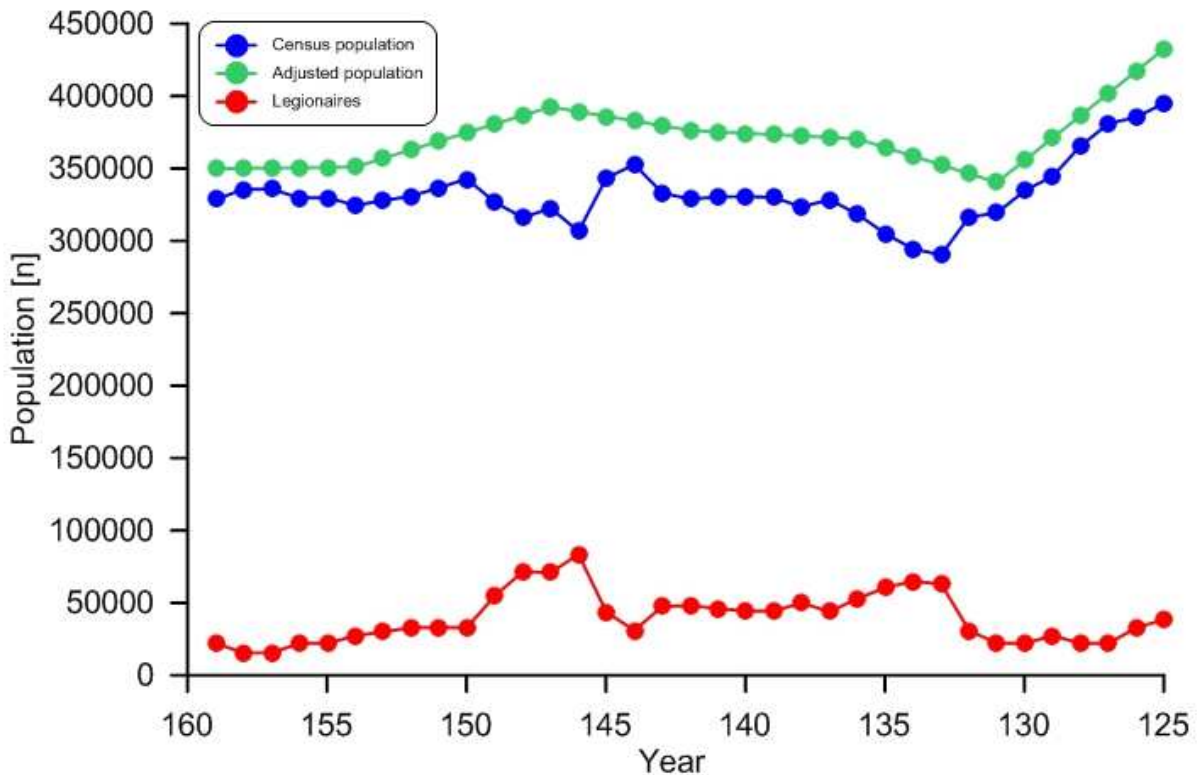
⁶¹⁷ Appian, VI. 10. 60: "At this time Galba, who was greedier for money than Lucullus, gave a little of the booty to the army, and a little to his friends and appropriated the rest for himself, even though he was already the richest of all the Romans..."

In 125, however, the census figures register a drastic increase of almost 76,000 citizens in only six years since the previous census (131). It is likely that this “return” was prompted by the reforms of the Gracchi. First and foremost, the *Lex Agraria* offered the possibility of receiving more public land and it surely influenced the census after 133.⁶¹⁸ Also, Gaius Gracchus’ *lex militaria* permitted soldiers to receive clothing free of charge, slightly reducing the deduction on the *stipendium* of the soldiers.

If we include the soldiers in service overseas, we can change the face of the census figures.⁶¹⁹ The following graphs shows the census population, the number of citizens in service in the legions, and an adjusted census population level from 159 to 125. These data are presented per year and not per census in order to offer a full picture of the movements of the Roman population during this period. Furthermore, this will allow us to have a better idea of the impact of military service on the census population. On the number of Roman citizens in service during this period, we use the strength of the legions suggested by Livy (5,500 citizens per legion), instead of Appian’s 6,000.

⁶¹⁸ On Tiberius Gracchus’ *Lex Agraria* see Plutarch, *Tiberius and Gaius Gracchus*, 8; Velleius, II. 2 or Florus, II. 2. 14: the law limited possession of public land to the amount set by the Licinio-Sextian law, and provided for assigning the rest to poor people through a commission of three people.

⁶¹⁹ Regarding the debate on the exclusion of Roman soldiers stationed overseas from the census figures see Rosenstein, *Rome at War*, 146: “...the number of Roman citizens counted by successive pairs of censors generally increased, [...] by adding in citizens, mainly men serving with the legions, whom censors are likely to have missed.” Also, if we look at the sources, soldiers in service outside of Italy are never mentioned with one exception, and that is the census of 204 described by Livy, XXIX. 37, in which soldiers overseas are clearly included: “...the censors sent agents through the provinces to report on the number of Roman citizens who were in the armies in the various locations. With these included, the census numbered 214,000 souls.” However, none other earlier or later census figures mention the soldiers.



The graph clearly shows that during the two main periods of intense military activity – between 149 and 146 and from 136 to 133 – we have in both cases a decrease in the original census figures, though the adjusted figures show a much smoother curve. It seems clear that the key to understand these variations is the army and military service of Roman citizens.

The adjusted population line gives a better idea of the matter of the under-registration rate.⁶²⁰ Citizens who did not present themselves to be registered represented a constant problem for the Republic. It is likely that rates of registration varied, and, as we have discussed, one important factor was the attractiveness of service in the army at that particular time.

In order to truly understand the impact of under-registration we have to put forward a likely level in normal circumstances, and how much is that expected to have varied. Brunt suggests a standard 10%,

⁶²⁰ On under-registration see Elio Lo Cascio, 'Recruitment and the Size of the Roman Population from the third to the first century BCE', in ed. Scheidel, W., *Debating Roman Demography* (Leiden, Boston and Koln, 2001), 123-124; Rosenstein, *Rome at War*, 157; De Ligt, 'Roman Manpower Resources', 6; De Ligt, *Peasants, Citizens and Soldiers*, 81

but, as advised by Lo Cascio, I believe it should be higher (15% at least) mainly due to the centralized nature of the whole procedure.⁶²¹ Finally, Rosenstein argues, “The Roman census depended in the last analysis on the voluntary compliance of the citizens: if they did not register, there was little the government could do to compel them...”⁶²²

We can use as examples the low figures of 131 against those of 125. If, as we have suggested, the normal under-registration rate was 15%, 59,210 citizens would have been missed by the censors; hence the population would increase from 394,736 to 453,964 citizens. Considering that we know that in 125 there were seven legions in service (38,500 citizens), we can estimate the military participation rates of that year to 9.7% of the census population, but it might drop to 8.4% if we consider the under-registration rate.

We can suggest that by 131 the under-registration rate, due to the unpopularity of the Spanish wars, was much higher than normal and up to 30%. According to the census figures, the population counted 318,823 citizens. With a 30% under-registration rate, the number of citizens who did not register would be 95,646, and the total population would increase to 414,469 citizens. Regarding the recruitment rates, we know that that year only 4 legions (22,000 citizens) were in service, so 6.9% of the citizen population was under arms if we are looking at the census figures, and it would decrease to 5.3% if we are considering the under-registration rate.

In 147, while the Third Punic War entered its climactic phases, the revolt in Macedonia was crushed and the Achaean War was at its beginning. Because of this, a very large number of Roman citizens wanted to be enlisted so they could fight in Africa or in the East. The most immediate consequence is the very high rate of citizens under arms. The corrected census of 147 shows the potential of the Roman manpower. The prospect of great booty from the conflicts in Africa, Macedonia and Greece attracted recruits, making it hard to see military service as a burden.

Also, we will shortly see that during the second half of the second century, the property requirement for service was probably reduced to allow more poor citizens to enlist. So we should consider that these two

⁶²¹ See De Ligt, *Peasants, Citizens and Soldiers*, 107-112; see Brunt, *Italian Manpower*, 54 and Elio Lo Cascio, ‘Roman Census Figures’, 245-246

⁶²² On the matter of under-registration also see Rosenstein, *Rome at War*, 157

aspects together – citizens who wanted to be enlisted because of the benefits of military service, and a reduction of the census requirement for service in the army – allowed an “explosion” of the census return from 133 showing that a shortage of manpower in the mid-second century, and especially during the Gracchan period was far from real.

After 142 the major conflict zone was Spain: we have a drop in the census figures of 142 which continued until, by 131, the population registered was of 340,823 citizens. Rather than a sudden demographic crisis, this situation was likely the result of citizens being unwilling to serve in the Spanish campaign.⁶²³

At some point in the late second century, the census level for the fifth class was further reduced, as both Cicero and Aulus Gellius suggest a minimum census requirement of 1,500 *asses*.⁶²⁴ Compared with the 11,000 (Livy) or 12,500 (Dionysius) for the archaic period, and the 4,000 *asses* given to us by Polybius, we can see the progressive and consistent reduction of the minimum census requisite for military service.⁶²⁵ The reduction fits well with the subsequent abolition of the property requirement for military service attributed to Marius. Mattingly and Crawford, however, suggest that by the mid-second century property qualifications were not expressed in *asses*, but in *sestertii*.⁶²⁶ Crawford asserts that ‘all state assessments hitherto expressed as so many *asses* were now converted to the same number of *sestertii*’. A minimum census requirement of 1,500 *sestertii* would translate to 3,750 *asses*, a minimal reduction from the 4,000 *asses* suggested by Polybius. Yet, the *stipendium* continued to be calculated in *asses* and Cicero and Gellius would seem to suggest bronze coins.⁶²⁷

So, if the minimum census requirement reduced from 4,000 to 1,500 *asses* (600 *sestertii*), the main issue is to consider that this decrease would have opened military service to more low class citizens for whom

⁶²³ See Pierre Cagniard, ‘The Late Republican Army (146 – 30 BC)’, in ed. Erdkamp, P., *A Companion to the Roman Army*, 81 and Rosenstein, *Rome at War*, 157

⁶²⁴ Cicero, *Rep.*, II. 40: “...qui aut non plus mille quingentos aeris aut omnino nihil in suum census praeter caput attulissent, proletarios nominavit...”; Aulus Gellius, *Attic Nights*, XVI. 10. 10: “Romana tenuissimi pauperrimique erant neque amplius quam mille quingentum aeris in census deferebant, proletarii appellati sunt...”

⁶²⁵ On the evolution of minimum property requirement for service in the army, see Rathbone, ‘Assidui and Prima Classis’, 122-125 and 139-142

⁶²⁶ Mattingly, ‘The Property Qualifications of the Roman Classes’, *JRS* 27 (1937), 99-107; Crawford, *Roman Republican Coinage*, vol. II (1974), 621; also see Lo Cascio, ‘Ancora sui Censi Minimi delle Cinque Classi “Serviane”’, in *Athenaeum* 66 (1988), 295-296

⁶²⁷ Tacitus, *The Annals*, I. 17 shows that military payment was still expressed in *asses* during the reign of Tiberius. Also see Rich, ‘The Supposed Shortage’, 313

the army was a source of income, thus being part of the explanation for the jumps in the census figures during the second half of the second century.

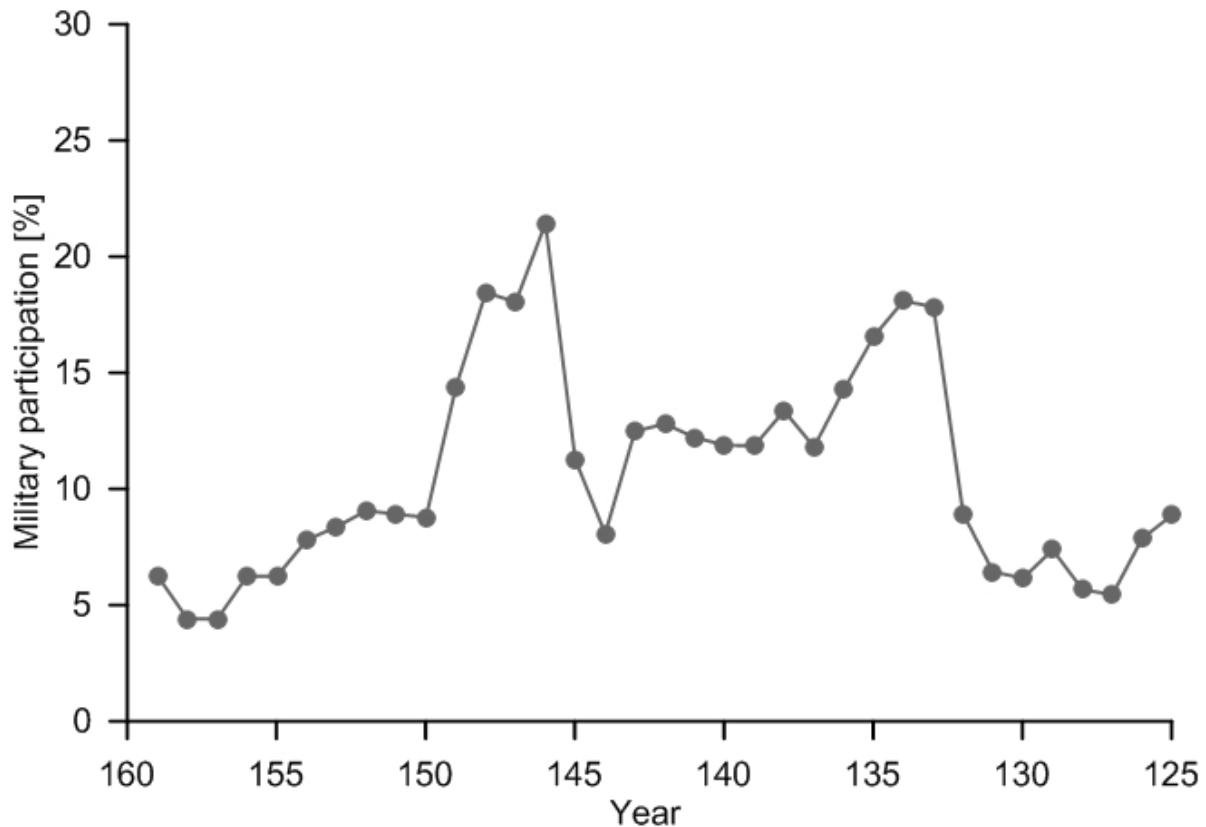
It is not possible to date the second reduction of the census requirement with confidence. Crawford suggests that it falls between 150 (after Polybius wrote his Book VI) and 141 (when the *as* was replaced by the *sestertius* as the unit of reckoning), but we might look at this from a census – and military – prospective.⁶²⁸ A plausible date might be in 154, because, by looking at the “adjusted population” levels on the graphs, there is a constant increase in the census return during the following period. The requirement for soldiers, and, at the same time, the number of citizens joining the army in order to take part to the campaigns in Africa and in the East might suggest that the minimum census requirement for military service had been lowered. The key fact is that Roman citizens wanted to be enlisted in the army. Another possibility is to postpone the reduction of the census requirement to the Gracchan period, as this could help explaining the high return in the census of 125. If we look at the “census population” levels on the graphs, we can see that by 133 the citizen population reached the lowest point during this period (289,867). However, after only eight years, it reached the highest point yet (394,736), suggesting that possibly a combination between a reduction of the property requirement for military service, and the interest generated by the land reforms could have increased the number of Roman citizens willing to be registered. It is plausible that the census requirement was lowered during the Gracchan period also because of Gaius Gracchus’ military law that allowed recruits to receive clothing from the state free of charge, suggesting that Rome was now recruiting poorer soldiers.

The subsequent abolition of a census requirement for service by Marius was the completion of a process that started towards the end of the third century.

We have analyzed the different wars of the second half of the second century, looked at the number of citizens in service during this period, and suggested an adjusted population level. These census figures, together with our knowledge of the number of soldiers in the legions allow us to have a complete view on the burden of military service, and the proportion of Roman citizens in service in the army during the second half of the second century. The following graphs, by using the same values of the previous one

⁶²⁸ Rathbone, ‘Assidui and Prima Classis’, 151 suggests that soldiers were never paid in *sestertii*. Crawford, *Roman Republican Coinage* vol. II, 625

(in terms of number of men per legion), shows the percentage of Roman citizens recruited in the army between 159 and 125.



It appears that rates of recruitment were extremely variable, much more than during the first part of the century.⁶²⁹ Recruitment rates were particularly high on two occasions: between 149 and 146, and from 136 to 133. Even though during both these periods we have very high recruitment levels, they were very different from each other. Between 149 and 146, Rome was fighting in Africa and Macedonia/Greece, and citizens were eager to join the legions. By 136, on the other hand, the wars in Spain were less popular and successful. After 133, the recruitment rate returned to the same levels as before 149 (under 10%). As we have mentioned earlier, under-registration may alter the recruitment rates, but, at the same time, we don't have precise data on the actual levels of under-registration. Finally, there is a possibility that the efficiency and the importance of the census declined somewhat during this period. We can see that from

⁶²⁹ De Ligt, *Peasants, Citizens and Soldiers*: "...the surviving evidence, however fragmentary, would seem to contradict the notion that conscription and a heavy military mortality rate prompted a demographic downturn."

164 and 125 we have a total of eight census figures, while after 125 we have one more census figure regarding the second century (in 114), and we have to wait thirty years for the next one (in 85).⁶³⁰ The territorial expansion of Rome and the migration of citizens made counting the people more difficult. Further, the abolition of direct taxation removed a function of the census.

We will not cover the final part of the second century mainly because of the lack of census figures – with the exception of that for 114. This limits our understanding of the military reforms attributed to Gaius Marius, the most important event (for this thesis) of this period. It is plausible that the abolition of the property requirement for service in the army may have incentivized the poorest citizens to register at the census. It is unclear whether the change brought on-stream a significant number of new recruits, given that the minimum census requirement was only 1,500 *asses*, and, as we have argued earlier, it is difficult to imagine huge numbers of people who were able to survive while owning less than the already very low minimum property requirement. Allowing the *capite censi* to join the army, however, permitted access to the benefits of service to the very poorest elements in Roman society.⁶³¹

In the following, and final chapter of this dissertation, we will examine the potential benefits of military service as an alternative occupation and/or source of income for Roman citizens.

⁶³⁰ Regarding the census figures of the second half of the second century, they are reported in 164, 159, 154, 147, 142, 136, 131 and 125.

⁶³¹ The Jugurthine War can be an example of this: Roman troops plundered Numidia since the beginning of the war, so they probably gathered a considerable amount of booty; Plutarch, *Marius*, 12 describes the rich booty carried during Marius' triumph. Cassius Dio, XXVII. 94 says that after the victory of Aquae Sextiae, Marius sold all the plunder – suggested by Plutarch, *Marius*, 21 to be very large – to the soldiers at a low price.

Chapter 7

THE ARMY AND THE ECONOMY OF THE ROMAN REPUBLIC

The aim of this chapter is to understand the impact of military service on the Romano-Italian economy of the second century and to analyze the different strategies employed by the Roman citizens and their families in order to find a sustainable balance between the frequent, yet necessary service in the army, and their economic cycles.

This is an area which has seen considerable academic controversy, particularly in association with the Gracchan crises. The predominant model has been one of economic and demographic decline of the rural, peasant class. That decline has been related to increasing pressure (political and economic) resulting from the development of villa agriculture and a reduction in the labour available for small peasant holdings due to the increasing demands of military service. More recently, the model of decline has been challenged by a model of intensification based mainly on the interpretation of archaeological material. Survey recoveries indicate that the *villae* system became a more prominent feature in Roman agriculture during the second century, intensified in the first century, but, most important, it existed alongside a network of small holdings.⁶³² Such evidence raises considerable methodological issues related to the dating of sites, site typologies, and site recovery patterns. Survey recovery rates are the key to reconstructing a productive landscape. But recovery rates depend on the spotting, recognition, and dating of ceramics (thus on archaeological techniques) and on the presence of datable material in the first instance. Participation in a market economy makes the peasantry more visible, while poorer, or more isolated peasants would leave less data.

As a result of the new data, we cannot conclude that the Roman peasantry was facing a demographic decline during the second century. We certainly cannot suppose that extended military service in this

⁶³² Elio Lo Cascio, *Crescita e Declino. Studi di storia dell'economia romana* (Roma, 2009), 26: "L'espressione più caratteristica di questo sviluppo, quantitativo e qualitativo, dell'economia agraria romana già a partire dal III secolo ma poi soprattutto nel II e I secolo a.C. è certo la villa cosiddetta schiavistica..."; also see Jean-Paul Morel, 'Early Rome and Italy', in eds. Scheidel, W., Morris, I., and Saller, R., *The Cambridge Economic History of the Greco-Roman World* (Cambridge, 2007), 504-505

period caused a general impoverishment of the country dwellers and their displacement from the land. Rather, we argue that the impact of military service on the Roman small farmers was more likely to have been advantageous. Service in the legions provided them with incomes additional or alternate to those derived from the land, with new land in colonial settlements, or resources that would allow investment in existing properties and thus enable more families to remain on relatively small plots. As we will demonstrate, a vast amount of civilian labour was required in order to provide food, military equipment or any kind of supply (clothing, pottery, etc) to the legions, making the army the largest direct and indirect employer in the Roman world.

This chapter is divided into two main parts: the first analyses the Roman economy of the second century, while the second is focused on the role and impact of the army on the economy. The initial section opens with an historiographical analysis of the model of decline elaborated by Keith Hopkins and Peter Brunt, but then moves to challenge some of its key elements. This allows us to revisit the matter of the *villae*; by combining literary and archaeological evidence we are going to reconsider their origins and development, discuss their role in the economy and their impact. As a result, we will suggest a co-existence between them and small farms instead of a necessarily, yet ultimately negative, competition that wouldn't benefit neither of them. We will then conclude this section by suggesting a strong connection between the growth of the army and the development of the *villae*. Next, we move to look at the impact of the growth of the city of Rome, but also considering the possibility of expanding this argument to other Italian cities as well.

The first part of the chapter ends with a section focused on the debate surrounding Roman citizen population, its connection with the economy of the second century, and the role played by survey archaeology in the discussion between the "low count" and "high count". As already mentioned before, recovery rates are a crucial part in understanding the economic involvement of the small farmers. The demographic implications, rather than confirming one model over the other, seem to allow us to escape from this binary debate and look for new solutions.

The second part of the chapter is dedicated to the role of the army in the economy. It starts with an examination on the recent attempts that challenge the general negative view on recruitment and military service. We then move to an analysis of different strategies adopted by Roman families to counterbalance the absence of their men due to service in the legions. This will lead to a discussion on the direct and,

especially, indirect impact of the army. Finally, we will look at colonization as both part of the strategies and also as one of the benefits offered by the army.

* General considerations on the second century economy and the impact of the army

Rome, like every other ancient Mediterranean state, needed to balance the conflict between warfare and agriculture. In the archaic period wars were fought by smaller armies and relatively close to Roman territory, and mainly during the summer (when the soldiers' labour was not needed in their fields). However, as Rome progressively completed the conquest of Italy during the late fourth and third centuries, soldiers were required for year-round service in the army. Also, the First Punic War caused a significant growth of the size of the army increasing the number of peasants withdrawn from agriculture. Thus, the warfare that led to the expansion of the Republic risked the sustainability of the farms that supplied the soldiers. Rome recruited only citizens who held property and it seems likely that smallholders formed the backbone of the legions.⁶³³

Some modern interpretations of the Gracchan political crisis link it to a profound crisis in peasant agriculture which is in turn linked to the demands of military service. This is what we might call the "Brunt-Hopkins model": a combination of Brunt's pessimistic scenario on Roman agricultural economy and Hopkins' theory on the formation of the slave society as a consequence of the expansion of the Republic after the Second Punic War.

According to Brunt, Roman agricultural productivity suffered from extremely low yields (little or no manuring, weeding, or hoeing), biennial fallow, and a concentration on inexpensive cereal crops, grown for subsistence, neglecting market gardening, wine, olive oil, tree crops or livestock – even pigs or barnyard fowl like chickens.⁶³⁴ This pessimistic position is summarized by Morley: 'Since Roman agriculture remained wholly pre-industrial, non-mechanized and without artificial fertilisers, the consensus among ancient historians has been that yields and productivity must have been relatively low'.⁶³⁵ What follows from this assumption of a relatively unproductive agricultural system is that the

⁶³³ Rosenstein, *Rome and the Mediterranean*, 112

⁶³⁴ Peter Brunt, review of White, K. D., *Roman Farming*, on *JRS* 62 (1972), 153-158

⁶³⁵ Neville Morley, 'The Transformation of Italy, 225-28 BC', *JRS* 91(2001)

population that this system could support must also have been relatively low. Further, if the capacity of the agricultural economy was limited, relatively small increases in population or increased pressure on the land through, for instance, the development of estates that used predominantly imported servile labour and which must have occupied an increasing proportion of Italian land, risked some sort of Malthusian crisis among the peasant class. It is this peasant-land crisis that was regarded as underpinning the Gracchan political crisis.

Hopkins summarized the model in *Conquerors and Slaves*. He argued imperial conquest ensured a constant influx of wealth (in the form of booty, etc) into Italy, but according to Hopkins' traditional model much of this wealth was retained by the Roman elite who invested it in Italian land and established slave-staffed estates on the vastly increased *ager publicus*.⁶³⁶ This led to the development of commercial farming as described in Cato's *De Agri Cultura*. Appian, with his grim description of the *ager publicus*, is the main source on the decline of the Roman free peasantry and the unrestrained expansion of the *villae*.⁶³⁷ The establishment of moderately large farms on public and other land by the rich for agriculture and animal husbandry, is seen as depriving the poor of access to all forms of land. But this competition for land is related also, in Appian's account, to pressures of military service so that in Hopkins' view military service in the second century became a form of peasant emigration which enabled the further expansion of large estates.⁶³⁸

⁶³⁶ Hopkins, *Conquerors and Slaves*, 30: "Like death in war, it helped to create vacancies on Italian land, which the rich were only too anxious to occupy."; Rosenstein, *Rome and the Mediterranean*, 261: "...the spoils from those same wars enriched Rome's upper class."; Roselaar, *Public Land*, 180: "It is generally assumed that there was fierce competition among the rich to acquire ever more land. Because the elite were always eager to acquire more land, the poor were gradually expelled from their holdings."

⁶³⁷ Appian, *BC*, I. 7: "As they subdued successive parts of Italy by war, the Romans confiscated a portion of the land and founded towns, or chose settlers from their own people to go to existing towns – this being the alternative they devised to garrisons. In the case of the captured land which became theirs on each occasion, they distributed the cultivated area at once to settlers, or sold or leased it; but since they did not have time to allocate the very large quantity that was lying under-cultivated as a result of hostilities, they announced that this could for the moment be worked by anyone who wished at a rent of one tenth of the produce for arable land and one fifth for orchards. Rents were also set for those who pastured larger and smaller beasts. This they did to increase the numbers of the people of Italy, whom they considered exceptionally tough, so that they would have their kin to fight alongside them. But the result was the opposite. The rich gained possession of most of the undistributed land and after a while were confident that no one would take it back from them. They used persuasion or force to buy or seize property which adjoined their own, or any other smallholdings belonging to poor men, and came to operate great ranches instead of single farms. They employed slave hands and shepherds on these estates to avoid having free men dragged off the land to serve in the army, and they derived great profit from this form of ownership too, as the slaves had many children and no liability to military service and their numbers increased freely. For these reasons the powerful were becoming extremely rich, and the number of slaves in the country was reaching large proportions, while the Italian people were suffering from depopulation and a shortage of men, worn down as they were by poverty and taxes and military service. And if they had any respite from these tribulations, they had no employment, because the land was owned by the rich who used slave farm workers instead of free men."

⁶³⁸ Hopkins, *Conquerors and Slaves*, 28-30

The flow of imperial capital into the land reflected a moral perception of the land as a worthy investment, but also probably an economic reality in which the profits of agriculture were the most reliable source of income and the land the best and most obvious investment. In an agricultural economy, the chances are that the land is going to be the most important source of wealth and power. In Republican Rome agriculture became a commercial investment and is treated as such by Cato and Cicero, who describes it as the most profitable and respectable source of income in comparison with trade, industry or any other profession.⁶³⁹

Although there are differences, the pattern of an increased commercialization of agriculture, the development of slave labour, the displacement of the peasantry, and the increasing pressure of military activity has formed a core narrative of the second century in scholars as diverse as Toynbee, Frank, De Neeve, Gabba and Morley as well in the work of Brunt and Hopkins.⁶⁴⁰

The gradual removal of the free population from the fields of Italy has been used to explain the growth of urban centres in Italy, particularly Rome. Toynbee portrayed such centres as a destination of last resort for the Italian peasantry.⁶⁴¹

Such factors are thought to have led to a gradual depopulation of the Italian countryside. This is reflected in the stagnant or declining figures for the census, which could be read in relation to the increasing urban population, as evidence of depopulation of the countryside. Since it is assumed that the Roman army relied heavily on the rural poor for its infantry, issues in recruitment for the Spanish wars could be related to the poor census figures (see p. 144). Indeed, in Plutarch's account of the Gracchan troubles, Tiberius Gracchus is supposedly motivated by observing the replacement of the free rural poor with a servile

⁶³⁹ See Cicero, *De Senectute*, XV. 51, and especially *De Officiis*, I. 42. 151: "But of all occupations by which gain is secured, none is better than agriculture, none more respectable, none more profitable, none more delightful, none more becoming to a freeman."

⁶⁴⁰ Richard Frank, 'Ager Publicus and Latifunda', in *The Ancient World*, vol. II, n°2 (1979), 48-49; Paul De Neeve, *Colonus, private farm-tenancy in Roman Italy during the Republic and the early Principate* (Amsterdam, 1984), 79; Emilio Gabba, 'Italia Romana', in *Athenaeum* (Como, 1994), 105-106 and 155-158; Neville Morley, *Metropolis and Hinterland: the City of Rome and the Italian Economy 200 BC – AD 200* (Cambridge, 1996), 133; Hopkins, *Conquerors and Slaves*, 49: "As in most other pre-industrial societies, land-ownership was the bedrock of wealth. Generally speaking, both senators and knights derived the bulk of their incomes from land. The richer they became, therefore, the larger their land-holdings. But good agricultural land in central and southern Italy was already cultivated, much of it by free peasants. The formation of large landholdings inevitably involved their expropriation and expulsion."

⁶⁴¹ Arnold Toynbee, *Hannibal's Legacy*, vol. II (London, 1965), 159-160 and 167

population in the region to the north of Rome.⁶⁴² If the population was being swelled by an increasing landless proletariat who would be inadmissible to the army, the land reforms of Tiberius Gracchus were both a traditional and logical response to the problems of citizen impoverishment, the numerical decline of the free peasantry, and the recruitment issues faced by the magistrates.⁶⁴³

This neat model has in recent years come under sustained critique. This has come from two primary directions. As we shall discuss below, some historians of the Roman economy, notably Elio lo Cascio, have offered more optimistic readings of the demographic situation, notably the Augustan census data, which entail a more optimistic reading of the resilience and agricultural productivity of the peasant small holders of Italy. The second source of disquiet with the traditional model is the archaeology of the Roman landscape which has developed enormously in sophistication and detail since the early 1970s.

The transformation in our understanding of the Italian countryside has resulted from the development of survey archaeology. Field walking campaigns in Central Italy (South Etruria in the early 1970s, more recently in the Tiber Valley⁶⁴⁴) have recovered many small sites dated to the second century. These sites have been associated with farms and their survival would appear to attest to the resilience and continued presence of a substantial free rural population. Potter, looking at the sites and survey recoveries in South Etruria suggests that an increasing number of sites is an indication of a growing population, and that ‘the countryside [...] seems to have supported a very large farming population’.⁶⁴⁵ More recently, the data of the South Etruria Survey – in particular the matter of ceramic chronology – has been re-evaluated by the Tiber Valley Project. Of great importance for the results of these studies is the “intimate and inescapable relationship”⁶⁴⁶ between the city of Rome and the Tiber valley that, as Patterson highlights:

“The picture emerging from both the literature and from archaeological evidence clearly suggests that the middle Tiber valley was a route of major importance for the supply of food and other requirements of the city of Rome [...] and this inevitably must have had a major effect on the economy of the parts of

⁶⁴² Plutarch, *Tiberius Gracchus*, 8

⁶⁴³ Hopkins, *Conquerors and Slaves*, 63

⁶⁴⁴ See Helen Patterson and Martin Millett, ‘The Tiber Valley Project’, in *PBSR* 53 (1998), 1-20

⁶⁴⁵ Potter, *The Changing Landscape*, 120

⁶⁴⁶ Helen Patterson, Helga di Giuseppe and Rob Witcher, ‘Three South Etrurian “Crises”: first results of the Tiber Valley Project’, in *PBSR* 72 (2004), 29

Sabine, Etruscan and Umbrian territory closest to the river (and potentially those further away, too).⁶⁴⁷

Crucial for the project is also the progressive transformation of the Tiber valley as the hinterland of Rome and the impact of the city's pressure on it.⁶⁴⁸ Witcher, focusing on the relationship between Rome and its *suburbium* (the area extending at least 50km from Rome), argues that the *suburbium* around Rome was densely populated and occupied by a large and reasonably prosperous smallholder population integrated into the urban market.⁶⁴⁹ Lo Cascio as well highlights that both the specialization of the production and its intensification were directly connected with the growth of the major "consumption center", which was, obviously, Rome. Therefore, the *praedia suburbana* are the ones the most intensively cultivated by a numerous rural population whose settlements strongly increased during the second part of the second century, pattern that will continue during the first century and that will reach even higher levels during the Imperial age.⁶⁵⁰

- Villas

New survey techniques also allow us to challenge the negative view of villas. As noted by Launaro, it is assumed that: 'the growth of larger estates centered on slave-staffed villas taking place at the expense of small farms owned by free peasants'⁶⁵¹ making small farms and the rising *villae* incompatible. It is, however, plausible to reimagine the impact of the villas, as enhancing local agricultural regimes, largely through the provision of occasional paid work for local small farmers, but perhaps also through the spread and improvement of agricultural technology and marketing systems.

As we argued in previous chapters, the intensification of Roman agriculture that occurred during the Second Punic War – when regions of Central Italy (Etruria and Latium in particular, but Umbria as well) became the main producers of food that fed both the population and, especially, the large armies deployed

⁶⁴⁷ John Patterson, 'City, Territory and Metropolis: the case of the Tiber Valley', in ed. Patterson, H., *Bridging the Tiber. Approaches to Regional Archaeology in the Middle Tiber valley* (London, 2004), 64

⁶⁴⁸ Patterson, di Giuseppe and Witcher, 'Three South Etrurian Crises', 29

⁶⁴⁹ Robert Witcher, 'The Extended Metropolis: urbs, suburbium and population', in *JRA*, 18 (2005), 123-133

⁶⁵⁰ Lo Cascio, *Crescita e Declino*, 50-51: "Per esempio, la zona più vicina a Roma tra il corso del Tevere e quello dell'Aniene (che oltretutto potevano consentire un rapido ed economico trasporto delle derrate a Roma) registra una forte densità di insediamenti già in età arcaica; [...] c'è una forte ripresa con la seconda metà del II secolo e la prima metà del I a.C. Nei due secoli successivi si perviene a un livello di occupazione che non ha eguali sino addirittura ai nostri giorni."

⁶⁵¹ Launaro, *Peasants and Slaves*, 157

by the Republic during the first part of the war – might be suggested as the origin of what evolved into the large estates and the “villa system”.⁶⁵² Debates on the co-existence of *villae* and small farms during the second century are usually focus on the extension of estates. The *lex Licinia* of 367 placed limits on the land to be held by individuals.⁶⁵³ There is some question as to whether this restriction applied to private land, public land or all types of land. Since the nineteenth century it was believed that the law concerned exclusively the occupation of the *ager publicus*, while Rathbone argued that its focus was private land only.⁶⁵⁴ Finally, Hermon, and more recently Rich and Roselaar, have suggested that the best interpretation for the *lex Licinia* is that it covered both public and private land.⁶⁵⁵

Roman estates would seem to have expanded in the subsequent centuries, probably through the accumulation of small Catonian farms and it seems possible that the law lapsed to all practical purposes. Appian, writing two centuries after the Gracchan crisis, sees access to public land as a major resource for the poor, but it is likely that such access was not through a form of ‘common land’, but through distributions of whatever form.⁶⁵⁶ As argued by Roselaar, there is little reason to believe that aristocratic accumulation of property was centred on *ager publicus*:

‘We would expect that anyone wanting to engage in market agriculture would have preferred to use private land, and that the spread of large estates mostly occurred on such land. It is therefore likely that *ager publicus* would have been an obstacle to the growth of large *villae*, rather than a stimulus’.⁶⁵⁷

Cato, in the *De Agri Cultura*, never mentions *ager publicus*, but talks about buying land.⁶⁵⁸ For these reasons, it seems more likely that the original restriction was on private land. Nevertheless, by whatever

⁶⁵² Marzano, *Roman Villas*, 224

⁶⁵³ On the *lex Licinia* see Livy, VI. 35 and Varro, *RR*, I. 2. 9

⁶⁵⁴ Roselaar, *Public Land*, 104; Dominic Rathbone, ‘The Control and Exploitation of *ager publicus* in Italy under the Roman Republic’, in ed. Aubert, J., *Tâches Publiques et Entreprise Privée dans le Monde Romain* (Neuchâtel, 2003), 145-146

⁶⁵⁵ E. Hermon, ‘Les Lois Licinia-Sextia: un nouvel examen’, in *Ktèma* 19 (1994), 119-142; John Rich, ‘Lex Licinia, Lex Sempronia: B. G. Niebuhr and the Limitation of Landholding in the Roman Republic’, in eds. De Ligt, L. and Nortwood, S., *People Land and Politics*, 545-560; Roselaar, *Public Land*, 105-106

⁶⁵⁶ The importance of access to the *ager publicus* by free peasants is well emphasized by Appian, as we have seen, and by the fact that the Gracchi focused their legislation exclusively on public land (see Appian, *BC*, I. 7); Rosenstein, *Rome at War*, 77-78 says that because of the *lex Licinia*: “...the use of public land to supplement inadequate holdings began to constitute one of the mainstays of small-scale agriculture at Rome”; De Ligt, ‘Roman Manpower Resources’, 7 criticizes Rosenstein’s theory: “...it rests on the assumption that access to public land was easy and unproblematic. [...] most of the *ager publicus* was controlled by the elite.”

⁶⁵⁷ Roselaar, *Public Land*, 201

⁶⁵⁸ Cato, *De Agricultura*, I

means the land originated, the elite clearly accumulated increasingly large property portfolios over the period of imperial expansion so that, by the second century, their wealth greatly increased so that they were now able to own multiple properties and buy more land.⁶⁵⁹

Marzano highlights the fact that, according to archaeological evidence in Central Italy (Latium, Etruria and Umbria), large villa estates appear to have been a phenomenon of the first century rather than the second, contrary to De Ligt.⁶⁶⁰ Dyson questions the impact that sites such as Settefinestre might had on the adjoining region – in this case, the *ager Cosanus* –, and if the rise of the villa contributed to the decline of the small farmers in the area.⁶⁶¹

We do not appear to be looking at a sudden revolution in landholding patterns in the second century, more of a very gradual evolution as the villa estates developed over the centuries: survey recoveries suggest that smaller *villae* can be dated earlier than the introduction of the *lex Licinia* of 367.⁶⁶²

The possible evolution of the villa system can be summarized in this way: Roman aristocrats always owned *villae*, but, due to their limited resources, they were neither very large nor economically significant up until the mid-third century.⁶⁶³ It seems likely that the villa developed during the late third century alongside the increasing differentiation of the aristocracy from other socio-political groups. Our suggestion, as we will see, is that the growing military requirements from the mid-third century, and especially during the Second Punic War, proved to be instrumental for the birth and development of the

⁶⁵⁹ Marzano, *Roman Villas*, 70 says that a system of “satellite villas” was very common: a *dominus* owned a large – main – villa, but also other smaller ones (in this case divided between *villa maritimae* and *rusticae*, but it might be easily applied for the countryside alone.

⁶⁶⁰ Marzano, *Roman Villas*, 773, 782 and 791; De Ligt, ‘Roman Manpower Resources’, 5: “...both literary sources and a variety of archaeological data suggest that the second century BC witnessed a proliferation of slave-run villae.; also see Launaro, *Peasants and Slaves*, 156

⁶⁶¹ On Settefinestre see Stephen Dyson, *The Roman Countryside* (London, 2003), 27, and also Marzano, *Roman Villas*, 125

⁶⁶² See Marzano, *Roman Villas*, 759-767 on *villae* in Latium dated from the second century; a very interesting case is the Auditorium villa (p. 469) one of the first identified on the suburbium of Rome – dated around the sixth century –, that went through different phases of occupation. Villa Palazzo at S. Palomba (see Marzano, 455), located next the ancient *Via Ardeatina*, shows elements that can be dated to the fourth century. Back in the *suburbium* of Rome, Centocelle (or Villa of the piscina) has a nucleus dated to the third century, but structures and elements in the tufa plateau might suggest a fourth century foundation (see Marzano, 489). The villa in via Togliatti – still in the *suburbium* – shows remains of previous buildings dated up to the sixth century (see Marzano, 559). Regarding Etruria, Le Colonne and Settefinestre themselves are *villae* from the second century, although they progressively changed through the years. More cases of mid-Republican villas are: La Provinca, the three villas at Manciano-Marsiliana (Banditella, Casale Vittorio Veneto, Poggio del Ginestraio), the two villas at Scansano and Podere Civitella at Talamone; see Marzano, *Roman Villas*, 768

⁶⁶³ Lo Cascio, *Crescita e Declino*, 31 mentions that the site of Auditorium shows traces of occupation that date back to the sixth century, and it continued until the second century AD.

commercial “capitalistic” villas that, by the second century, were organized according to the Catonian model.⁶⁶⁴ Between the end of the second century and the beginning of the first century the increase wealth of the upper classes caused the expansion of their *villae*, and this is when they started to become archaeologically prominent.⁶⁶⁵

The archaeological data from sites like Settefinestre, that has become the dominant example of “villa schiavista”, is focused on one architectural characteristic: the presence of courtyards surrounded by a series of rooms that, according to excavators, housed many slaves. From this the economic model of the slave-staffed villas became the dominant one and it has been applied to other *villae* recovered in Italy. However, already from the 1980s, Rathbone has warned us against: “...easy acceptance of a simple notion of the villa system being a straightforward slave mode of production.”⁶⁶⁶ If we turn to the actual archaeological evidence, we realize that we don’t know much about the actual function of these rooms, and that we have assumed on the presence of slaves although, as reminded to us by Whitehead: “...not to argue that slaves were an unimportant part of the rural economy, but merely to stress that archaeologically they are invisible...”⁶⁶⁷

A first example that we may look is the site of Le Verne (Piedmont): here Robino points out that there is no certainty regarding the function of the rooms around the large courtyard. She suggests that it is possible that this was actually a mansion rather than a villa, and thus the rooms may have been mainly bedrooms. If it was actually a villa, Robino suggests that these rooms may have been actually storerooms and service areas.⁶⁶⁸

Another example is the villa of the Volusii Saturnini at Lucus Feroniae (Fiano Romano, north of Rome), built probably during the mid-first century. Its courtyard has been regarded as an example of *ergastula*, however, as pointed out by Marzano, a room at the center of the supposed slave quarter is well decorated:

⁶⁶⁴ Cato, *De Agricultura*, I. 7 suggests 100 *iugera* as the best kind of farm; Roselaar, *Public Land*, 180: “...second century villae were usually quite small.”

⁶⁶⁵ Marzano, *Roman Villas*, 131: “It is no accident that the only archaeological evidence (Settefinestre) for the typology of slave quarters was discovered in Etruria, the very region indicated in the literary sources for an early diffusion of the extensive use of slave labour.”

⁶⁶⁶ Rathbone, ‘The Development of Agriculture’, 13

⁶⁶⁷ Nicholas Whitehead, ‘The Roman Countryside’, in eds. Malone, C. and Stoddart, S., *Territory, Time and State. The archaeological development of the Gubbio Basin* (Cambridge, 1994), 196

⁶⁶⁸ On the Le Verne site see Mirella Robino, ‘Osservazioni sulla cosiddetta Mansio di Rigomagus a Le Verne’, in *ATTA* 8 (1999), 249

“...there is a *lararium*, featuring an elegant mosaic floor of sophisticated design, a marble *mensa*, marble busts of members of the gens and a long inscription...”⁶⁶⁹ suggesting that these rooms were actually used for housing or storage.⁶⁷⁰

Even if we look at Settefinestre itself, the interpretation of the rooms surrounding the courtyards has been usually connected with the *ergastula* described by Columella, the places where chained slaves were housed for the night in an agricultural estate.⁶⁷¹ We should notice that in both Cato and Varro’s treaties there is no mention to the term *ergastulum*, although they make a clear distinction between restrained and unrestrained slaves, nor they predict separate rooms for the two groups. Finally, in Columella’s description, the *egastulum* is an underground room, thus making it hard to believe that those around courtyards, clearly not underground, were used for that function. As remarked by Robert Étienne and Elio Lo Cascio, we do not have archaeological remains of underground *ergastula* in any villas in Italy.⁶⁷²

These examples are not meant to challenge the presence of slaves in villas or in the Roman agricultural economy, but rather to point out the difficulties and risks in applying one ambiguous model to an entire system. As suggested by Marzano: “...the data offered by one of the best excavated villas are not as unproblematic as is often assumed and should be used with more caution when applied to other sites or to the elaboration of a general economic theory of Roman Italy.”⁶⁷³

Furthermore, the great expansion in numbers of villas during the first century, as showed by Marzano, might suggest that these estates had different roles.⁶⁷⁴ Various sites in the *suburbium* of Rome show a concentration of villas that, plausibly, were actually used as luxurious rural residences by the urban elite from nearby Rome, and, according to Launaro, they had nothing to do with agricultural production.⁶⁷⁵ Marzano also remarks the fact that *villae* might have even been used as inns according to their position,

⁶⁶⁹ Marzano, *Roman Villas*, 140-141

⁶⁷⁰ Leonhard Schumacher, *Sklaverei in der Antike* (Munich, 2001), 99 and Marzano, *Roman Villas*, 143

⁶⁷¹ Columella, *DRR*, I. 6. 3; he also makes a clear distinction between *ergastula* and *cellae* where unchained slaves were kept.

⁶⁷² Robert Étienne, *Recherches sur l'Ergastule*, in *Actes du Colloque 1972 sur l'Esclavage* (Paris, 1974), 264 ; Lo Cascio, *Crescita e Declino*, 32-33: “Sembra improprio, perciò, come una lunga tradizione di studi ha fatto, in particolare in Italia, considerare generalizzabile il modello di un’unità fondiaria di dimensioni medio-grandi, che utilizza prevalentemente, o quasi esclusivamente, schiavi senza famiglia, accasermati negli *ergastula* [...]: in molti siti gli *ergastula* non ci sono.”

⁶⁷³ Marzano, *Roman Villas*, 137

⁶⁷⁴ Marzano, *Roman Villas*, 771 shows that 81 sites were date to the second century, while 218 to the first century.

⁶⁷⁵ Marzano, *Roman Villas*, 95-96 and cites; Launaro, *Peasants and Slaves*, 127-128 on the site of Collatia in the *suburbium* of Rome, and 156.

like, for example, the villa at Matrice (Molise).⁶⁷⁶ The excavators have hypothesized that this villa, being close to the intersection between a north-south tratturo and an east-west road, also functioned as an inn.⁶⁷⁷

This development is likely to have been regional: each region of Italy experienced different economic/population patterns.⁶⁷⁸ The areas that according to Launaro's survey of surveys experienced either stagnation or decline are exactly those which, according to the literary sources, were demographically troubled – and used as the main support for the theory of an overall peasants decline.⁶⁷⁹ Other areas appear to show an expansion of settlement during the first and second centuries or no significant change.⁶⁸⁰

Significantly, there is some evidence to suggest that large villas may have been co-dependent on local peasantries and small urban centres, the very stuff of the traditional Italian landscape. The large villas of Settefinestre and Le Colonne have been re-dated by Dyson to the mid or late second century and their prosperity has been tied to that of the small colonial settlement at Cosa. With the decline of the Cosa and its port, it seems likely that local agriculturalists lost their outlet to more distant markets and that there was some decline in settlements as a result. At the same time, the large villas went into decline and may well have been deserted for a period before an Augustan reoccupation.⁶⁸¹

By looking at the Albegna Valley, on the outskirts of the economic center of Cosa and its harbor, an area that, as suggested by Carandini, was densely populated by Roman settlers, that, if we look at the study by Fentress and Cambi, reached a very high level of production and prosperity.⁶⁸² They have suggested

⁶⁷⁶ Marzano, *Roman Villas*, 131

⁶⁷⁷ See J.A., Lloyd and Dominic Rathbone, 'La Villa Romana a Matrice', in *Conoscenze* 1 (1984), 219

⁶⁷⁸ See Saskia Roselaar, 'Regional Variation in the Use of the ager publicus', in eds. De Ligt, L. and Northwood, S., *People, Land and Politics*, 597 and Launaro, *Peasants and Slaves*, 162

⁶⁷⁹ Launaro, *Peasants and Slaves*, 153 and 157

⁶⁸⁰ Plutarch, *TG*, VIII. 7 reports that Tiberius Gracchus, while passing through coastal Etruria on his journey to Numantia (135) witnessed "the solitude of the land". Cicero, *ad Atticum*, VIII. 3, reports that Apulia was "the most deserted part of Italy", while Seneca – more than a century later – referred to wild areas (*inculta and saltus*) as a prominent feature of Bruttium and Lucania, in opposition to the comforts (*delicata*) of Campania (*De Tranquillitate Animi*, II. 13). On the other hand, Latium was celebrated by Strabo, V. 3. 5 as "prosperous and all productive". Polybius, II. 15. 1-7 praised Northern Italy for the "cheapness and abundance of food", and Strabo, V. 1. 12 recorded the excellence of the same region because of the magnitude of the cities, its wealth, and, most interestingly, its abundance of men, which was such that Romans there were said to have surpassed the rest of Italy. Tacitus, *Historiae*, II. 17, in the first century AD, echoed this attitude towards Cisalpine as "the most prosperous of Italy (*florētissimum Italiae latus*)", and also Cicero, *Philippicae*, III. 13 for a similar celebration of the region as "flower of Italy".

⁶⁸¹ Marzano, *Roman Villas*, 138 and 217

⁶⁸² See Andrea Carandini, *La Romanizzazione dell'Etruria: il territorio di Vulci* (Milano, 1985), 49-51; also see Fentress, E., and Cambi, F., 'Villas to Castles: first millennium A.D. Demography in the Albegna Valley', in ed. Randsborg, K., *The Birth*

a slightly different relationship between *villae* and small farms in this area, usually identified with the “villa schiavilistica” model: “Their owners may have rented allotments to free tenants, as the presence in these areas of small farms and villages seems to suggest.”⁶⁸³ Evidence in the *ager Veientanus* as well seems to suggest the presence of free tenants in large estates.⁶⁸⁴

The archaeological examples that we have discussed have one common element that is what we tried to highlight in this section: the difficulty in accepting a standard model for the whole villa system.⁶⁸⁵

On a final note on our discussion on the *villae*, we should consider Marzano’ new interpretation of their role: according to her, villas can be also viewed as instigators of economic growth or indicators of the presence of pre-existing favorable economic conditions. This argument offers an intriguing alternative to the standard negative view on the establishment of villas by suggesting a positive economic connection and incentives:

“The successful establishment of villas in a region had an effect not simply in respect to surplus agricultural produce that was directed to regional or extra-regional consumption. Villas acted also as stimuli to the local economy by creating a new demand for certain good [...] that were regularly needed on an agricultural estate.”⁶⁸⁶

Marzano’s view clashes against Cato’s rule on the fact that, ideally, the estate manager should be a seller rather than a buyer, and that all that was needed on the estate should be produced internally, but on this she argues: “The idea of villas’ self-sufficiency is largely a myth, and the appearance of villas in a region meant that craftsmen were needed as well. [...] the establishment of villas put in motion a series of

of Europe, Archaeology and Social Development in the First Millenium A.D. (Roma, 1989), 81: “both the quantity and the quality of the agricultural production reached a high point. The huge number of amphorae produced in the area, and their diffusion throughout the western Mediterranean, are ample testimony of the market for the wine produced in the area.”

⁶⁸³ Fentress and Cambi, ‘Villas to Castles’, 82

⁶⁸⁴ See Lo Cascio, *Crescita e Declino*, 38-39; on the *ager Veientanus* see Anne Kahane, Leslie Murray Threipland and John Ward-Perkins, ‘The Ager Veientanus, North and East of Rome’, in *PBSR* 36 (1968) and Potter, *The Changing Landscape*, 124-126

⁶⁸⁵ Also see Lo Cascio, *Crescita e Declino*, 31: “In più è stata messa in discussione di leggere davvero, come si era tentato di fare, nei resti materiali, un’articolazione in fasi cronologicamente distinte, corrispondenti, in qualche misura, alle descrizioni dei tre agronomi: [...] un modello catoniano, un modello varroniano ed un modello columelliano.”

⁶⁸⁶ Annalisa Marzano, ‘Villas as Instigators and Indicators of Economic Growth’, in eds. Erdkamp, P., and Verboven, K., *Structure and Performance in the Roman Economy*, Bruxelles 2015, 207

economic transactions that ranged from very small-scale and localized ones, to larger ones.” this view is also supported by Lo Cascio.⁶⁸⁷

The following section will conclude our analysis on the *villae* by exploring the possibility that the army was actually one of the main reasons of the development of the estate system, and their expansion.

* Villae and the army

It is generally believed that the production of the *villae* was focused towards the growing urban market.⁶⁸⁸ While we are not arguing this, it is important to consider the fact that there was another growing market that was surely targeted by large landowners, as it required vast and constant supplies: the army.

Our suggestion is that the growth of the Roman army, especially from the third century, was one of the main factors and stimuli for the intensification and commercialisation of the Romano-Italian agriculture, and thus the development of the *villae*.

From what we have examined in the various sections dedicated to the recruitment, it is possible to suggest that this process began during the third century, when the army outgrew the force described by Polybius (four legions). We have suggested that the First Punic War was the incentive that led to the first major increase in the number of legions levied by the Republic. Polybius himself, in II. 24, seems to suggest that the four legions army was most likely outdated by the second half of third century. The turning point was undoubtedly the Second Punic War and the unprecedented number of troops and military requirements. After the war the military situation returned to normality, but we saw that, in comparison to the pre-war years, the number of legions was furtherly increased – mainly due to Roman expansion. The second century was characterized by a fluctuating number of legions due to the different military necessities, although the levels of the Hannibalic War were never reached until the first century. To all this we have to add the *socii*: not only Rome had to feed and supply its own soldiers, but, as Polybius reminds us, the allied contingents as well.⁶⁸⁹

⁶⁸⁷ Lo Cascio, *Crescita e Declino*, 33

⁶⁸⁸ Geoffrey Kron, 'Food Production', in ed. Scheidel, W., *The Cambridge Companion to the Roman Economy* (Cambridge, 2012), 160

⁶⁸⁹ Polybius, VI. 39

As said by Lo Cascio, from the third century Italy witnessed an intensification and expansion of its agriculture, mainly due to the increase of the population, of the urban markets – especially Rome – and trade towards the provinces.⁶⁹⁰ To these elements, I believe we should add the army. Our brief summary highlights the constant growth of the Roman army, and with that growth, inevitably came demand – for food in particular, but, as we will soon discuss, for all kind of materials.

Due to its growth, the army should be considered as one of the main markets of the Roman world; the increasing military activity from the third century was sustainable only by an intensification of agriculture by large landowners, possibly the only ones with the resources to meet these demands. The Second Punic War definitely intensified this process due to the unparalleled war effort sustained by the Republic, and laid the foundation for the expansion of the villa system of the second century.

The connection between military expansion and the development of the villa system is also highlighted by Launaro: “It was Roman expansion throughout the Mediterranean [...] that triggered and sustained this process...”⁶⁹¹ but we should consider that it was also the other way around, as *villae* were involved in the supply of the legions. Marzano, although referring to the Imperial period, looks at the production of villas: “Once their estates started producing wine, part of the surplus was exported to Rome or to military forts along the German *limes*.”⁶⁹² I believe that this can be easily applied to the Republican period, as she mentions the two main markets for *villae*’s production: Rome (thus the urban market) and the army.

Erdkamp and De Ligt suggest that, by the second century, provinces – mainly Sardinia and Sicily – started to become more and more important in the process of supplying the army.⁶⁹³ The role of the provinces in this procedure is undeniable, especially if we consider the fact that during most of the second century Roman legions were regularly stationed outside of peninsular Italy. This most likely increased the costs and the complexity of supplying the troops, thus requiring a more active role by the provinces.⁶⁹⁴ The prominence of Italy in this process is undeniable until the Second Punic War (included); the

⁶⁹⁰ Lo Cascio, *Crescita e Declino*, 34

⁶⁹¹ Launaro, *Peasants and Slaves*, 176

⁶⁹² Marzano, ‘Villas as Instigators’, 202

⁶⁹³ Paul Erdkamp, ‘Feeding Rome, or Feeding Mars? A long-term approach to C. Gracchus’ *lex frumentaria*’, in *Ancient Society* 30 (2000), 53-70; De Ligt, *Peasants, Citizens and Soldiers*, 33

⁶⁹⁴ Erdkamp, ‘Feeding Rome’, 59 adds that, due to the fact that Rome left garrisons on the islands, we are looking at a limited scale of provisioning.

complaints of the commanders of the legions stationed in Sardinia and Sicily reported by Livy are a clear indication that Italy was the source of supplies for the troops.⁶⁹⁵ Throughout the second century – especially its second half –, provinces became more involved in this process mainly in order to simplify it and reduce the costs. However, Rome stationed garrisons in the provinces, and these were usually composed by one legion (plus *socii*) that were reinforced only when necessary (as we have showed in the recruitment sections). As Erdkamp himself noted, this limited the quantity of supplies received from local communities.⁶⁹⁶ Finally, we have to consider the fact that up until the Late Republic, and in particular the Civil Wars era, Rome recruited its soldiers (citizens and allies) in Italy; once new legions were formed, they were sent where needed.⁶⁹⁷ Surely, soldiers received enough supplies for this period until they reached their destinations. Once the Republic started to recruit regular troops (not auxiliaries) in the provinces, a more meticulous provincial supply system was established.⁶⁹⁸

Finally, we should discuss the possibility of a connection between *villae* and mobile markets in the process of supplying the army. The case of the traders who followed the Roman army at Numantia mentioned by Appian shows that the legions attracted all sorts of businesses, but, at the same time, the spontaneous nature of mobile markets (they were attracted by a large army). The supply of the army was a process organised by the state, and we have argued that *villae* were part of it, while mobile markets, officially, were not. When present, they were probably more involved with the day-to-day activities of the soldiers, and while it is possible that *villae* provided the goods for the merchants who later showed up where the legions were stationed, leading to a commercialization of the system, the connection between the two is thin – and the lack of evidence does not help.

To conclude our discussion on the *villae* and moving to the following section of the chapter, our argument is not that the army was partially responsible for the birth of the villa system. As we said, *villae* have always been a part of Roman society, although different in size and overall impact, but started to become more prominent between the end of the second century and the beginning of the first century.

⁶⁹⁵ Livy, XXIII. 38 for Sardinia; Livy, XXIII. 48 for Spain

⁶⁹⁶ Erdkamp, 'Feeding Rome', 59

⁶⁹⁷ On the prominence of recruitment in Italy see Walter Scheidel, 'Roman Population Size: the logic of the debate', in eds. De Ligt, L. and Northwood, S., *People, Land and Politics*, 41

⁶⁹⁸ Brunt, *Italian Manpower*, 230, while talking about Spain mentions Sertorius as the first Roman commander who recruited regular troops en masse in the province – although received large reinforcements from Italy later. Erdkamp, 'Feeding Rome', 61 says that: "The Second Punic War provided the impulse to create more structural means for the acquisition of corn on behalf of the armies."

Nevertheless, the expansion of the army, in particular from the mid-third century, was one of the main promoter of their development and the intensification and commercialisation of the agriculture of Roman Italy. The Second Punic War, in particular, played a crucial role in this, especially because it also allowed the creation of what we might call the industry of war, something that we will analyse later.

The purpose of this section is not trying to completely change the general prospective on the Roman villas system, but, as said by Marzano: "...to stimulate us to think of villas outside the rigid paradigm of the "villa system"."⁶⁹⁹ We have showed that there is enough archaeological evidence to argue against, or at least cast doubts, on the standardization of the "villa schiavistica" model. The normally ignored positive impact of the *villae* offers interesting alternatives as well, plus the connection between them and the army should be considered.

- Economy final part: population, production

De Ligt, Northwood and Hin suggest that almost all new interpretations of the economic, social, political and military history of the Middle and Late Republic are fundamentally connected with the theories and discussions on Italy's population.⁷⁰⁰ This debate has been polarized into two camps, one with Beloch (1886), Brunt (1971), and Scheidel, and the other with Frank and Elio Lo Cascio.

A key element of the low count model is a belief in limited land available and used for cultivation, and thus limited productivity.⁷⁰¹ On the other side, Lo Cascio, Morley and Kron in particular reject these figures and suggest that more land was cultivated and, thus, total productivity was higher.⁷⁰² On both cases, however, it seems that Italy's agricultural capacities – both amount of land available and productivity levels – are used as tools in the demographic debate, as highlighted by Launaro.⁷⁰³

⁶⁹⁹ Marzano, 'Villas as Instigators and Indicators', 220

⁷⁰⁰ See Luuk De Ligt and Simon Northwood, 'Introduction', in eds. De Ligt, L. and Northwood, S., *People, Land and Politics*, 3; also, see De Ligt, *Peasants, Citizens and Soldiers*, 10; Hin, *The Demography of Roman Italy*, 16-18

⁷⁰¹ See Julius Beloch, *Die Bevölkerung der griechisch – römischen Welt* (Léipzig, 1886), 389 and Brunt, *Italian Manpower*, 126

⁷⁰² See Elio Lo Cascio, 'Popolazione e Risorse Agricole nell'Italia del II secolo a.C.', in ed. Vera, D., *Demografia, sistemi agrari, regimi alimentari nel mondo antico* (Bari, 1999), 239; Morley, *The Transformation of Italy*, 55-59; Geoffrey Kron, 'Roman ley-farming', in *JRA* 13 (2000), 277-279

⁷⁰³ Launaro, *Peasants and Slaves*, 30-31

Geoffrey Kron points to Varro's assertion that Italy was immensely productive.⁷⁰⁴ He also questions the assumption that smallholders were unable to compete with large capitalist farms: the potential presence of numerous animals provided the farmers with manure, which enabled them to obtain excellent yields even on small fields.⁷⁰⁵ Kron's argument highlights that Roman smallholders were a vital force in Roman agriculture and worked a significant proportion of Italy's arable land.⁷⁰⁶ Dyson also notes that faunal studies suggest the importance of the production and consumption of meat in the countryside.⁷⁰⁷ Polybius, after all, reminds us that pigs, reared in Northern Italy, were exported and consumed in large numbers every year both by the domestic and military market.⁷⁰⁸

The continuity of small farms can be seen in the archaeological record. De Caro's report on the excavations at Boscoreale (Campania), shows the presence of small plots varying between 3 and 8 *iugera* planted with vines, fruit and nut trees, a small irrigated garden, and there is also evidence for the keeping of some pigs and chickens.⁷⁰⁹ Both Evans and Keppie argue that operating mixed agriculture families could live off small allotments, while Rathbone simply states that farms between 5 and 12 *iugera* were enough to ensure subsistence.⁷¹⁰ De Caro suggests that even small farms were able to achieve a certain wealth through wine making, clearly a "cash product" (ancient sources stress that even a single *iugerum* of vineyard could be very productive⁷¹¹), while we should add mixed agriculture, and non-working animals (like, for example, pigs or barnyard fowl) as an important part of small farmers' production and

⁷⁰⁴ See Varro, *RR*, I. 2. 3-8; also, see Lucretius, *De Rerum Natura*, V. 1367-1378; also see Kron, 'Food Production', 157

⁷⁰⁵ Kron, 'The Much Maligned Peasants', 71

⁷⁰⁶ Kron, 'The Much Maligned Peasants', 108-109; also see Kron, 'Food Production', 158-159

⁷⁰⁷ Dyson, *The Roman Countryside*, 65; also see Kron, 'Food Production', 160-161 on the variety of Roman diet.

⁷⁰⁸ See Polybius, II. 15

⁷⁰⁹ See Stefano De Caro, *La Villa Rustica in Località Villa Regina a Boscoreale* (Roma, 1994), 115-130; on the importance of keeping pigs see Varro, *RR*, II. 4

⁷¹⁰ John Evans, 'Plebs Rustica: the Peasantry of Classical Italy', in *AJAH* 5 (1980), 139-144 argues how a family could live off a subsistence farm by exploiting varied foodstuff rather than relying on grains; Laurence Keppie, *Colonisation and Veteran Settlement in Italy* (London, 1983), 124, n.117 cites the testimony of peasants in the Liri valley – *ager Fregellanus* – that a holding of 3 ha/12 *iugera* would be sufficient to support a family, with part of the ground devoted to crops, part to vines and part to vegetables; Rosenstein, *Rome at War*, 66-68: a family of five needed between 21 and 24 *iugera*, but they are cultivating wheat alone, and it includes work animals; if the son went away for military service, the land required shrank to 15-19 *iugera*; p.232, quoting an unpublished work by Hopkins, says: "Seven or eight *iugera* worked by hand would suffice to support a family of 3.25 persons..." suggesting that working animals were not convenient for small farmers, as they required more land and resources. Rathbone, 'Poor Peasants and Silent Sherds', in eds. De Ligt, L. and Northwood, S., *People, Land and Politics*, 309

⁷¹¹ On wine production: Columella, *De Re Rustica*, III. 3. 10 says that the minimum price for wine was of 300 *sesterces* every *culleus* (= 20 *amphorae* = 40 *urnae*). *DRR*, III. 3. 2 reminds us that "...the return from vineyards is a very rich one" saying that according to Varro, *RR*, I. 2. 7, each *iugerum* of vineyard yielded up to 15 *cullei* (600 *urnae*) of wine, while Pliny, *NH*, XIV. 5. 52 suggests 7 *cullei* per *iugerum*. Columella, *DRR*, III. 3. 11 says that vineyards which yield less than 3 *cullei* to the *iugerum* should be rooted out.

consumption.⁷¹² Even though we seem to be able to suggest that small farms were able to achieve some wealth, we should consider, contra Kron, the much more realistic possibility that small holders did not compete against large estates for the simple reason that it would have been difficult for them.⁷¹³ Their primary aim, on the contrary, was their own survival through the production of what was enough to achieve it. If they were able to produce a surplus they could probably sell locally, or save it for themselves. Also, as we have just saw, we should consider the possibility that, as suggested by Marzano, the establishment of a villa was actually a positive economic input, instead of creating a negative competition.

Kron also argues against Scheidel on the fact that high standards of living in the towns of Roman Italy created a market for meat, which made it possible for Roman farmers to set up mixed farms based on convertible husbandry and the cultivation of grapes, olives, and industrial crops alongside cereals.⁷¹⁴ Furthermore, we have to consider the fact that different sources highly praise Italy's agriculture and the fertility of the land, saying that it was among the best in the world.⁷¹⁵ Although we might argue that they were maybe exaggerating, such positive worship would suggest that Italian land and agriculture were, at least, at good – if not very good – levels. Overall, this optimistic view of the Italian peasant economy leads the author to cast doubt on the reality of the agrarian crisis in the Gracchan period.

These different approaches challenge the traditional Brunt-Hopkins model by suggesting that it might have been rather easier for rural populations to survive than had previously been assumed. The survey evidence, imperfect though it may, points to continuities of settlement. Nevertheless, the archaeological evidence is compatible with either continuity or slight decline in the rural population. It seems less obvious that it could reflect major and rapid expansion of population.

⁷¹² Joan Frayn, *Subsistence Farming in Roman Italy* (Fontwell, 1979), 57-70 stresses the importance of vegetables – wild and cultivated – in peasants' diet (and production); M. Spurr, *Arable Cultivation in Roman Italy c.200 BC – c. AD 100* (London, 1986), 89 focuses on the cultivation of different types of cereals for both human and animal consumption; Rosenstein, *Rome at War*, 69-70 highlights the importance of mixed agriculture by adding legumes, fruit, vegetables, p.230 suggests that 2 *iugera* were usually used for mixed agriculture (garden, vineyard, orchard, etc); Kron, 'The Much Maligned Peasant', 80 suggests that Roman peasants "enjoyed a healthy level of meat and/or fish consumption.", 104 focuses on mixed agriculture/production.

⁷¹³ Also see Rosenstein, *Rome at War*, 15 against competition

⁷¹⁴ Scheidel, 'Roman Population Size', 46-49; Kron, 'Food Production', 160; also see Geoffrey Kron, 'Archaeozoological Evidence for the Productivity of Roman Livestock Farming', in *Munstersche Beitrage zur Antiken Handelsgeschichte* 21 (2) (2002), 55-59

⁷¹⁵ See Dionysius, I. 36-37; Pliny, *NH*, III. 39-41 and XXXVII. 201-203; Varro, *RR*, I. 2. 3-6 and Virgil, *Georgicae*, II. 136-176

Witcher explores the importance of the interpretation of survey archaeology in the demographic debate.⁷¹⁶ He argues that the “low count” implies a relatively high recovery rates for sites that, as a consequence, point toward a rural population engaged in a market oriented agriculture – rather than a subsistence one – that allowed the import and consumptions of fine wares, and a general reasonable wealth. By contrast, the low recovery rates, according to the “high counters”, would point to impoverished subsistence peasants with minimal economic contact with urban markets. Rathbone suggests that lower rates of site recovery might be attributed to poor peasants living in huts built from perishable materials, as hinted at in the literary material.⁷¹⁷

Surveys attest a large number of reasonable quality stone houses, attesting the presence of a relatively prosperous agricultural population to which we have to add those who are archaeologically invisible.⁷¹⁸ It is difficult to accept that the Italian countryside of the second century emptied of its peasantry; it is hard also to see it as crowded by masses of poor peasants. There is, of course, the third possibility with Saskia Hin’s “middle count” that the population, sustained by increasing economic possibilities in trade, non-agricultural labour in the expanding urban market and in the army, was growing slowly.⁷¹⁹

The urban expansion should not be looked exclusively in the same negative way as Toynbee or Morely; growing cities were also centres of expenditure, which must have provided economic benefits for the urban population. Not all the profits of empire were invested in the acquisition and development of agricultural enterprises; much was spent on goods and services and on buildings in towns, most obviously in Rome itself.⁷²⁰ The growth of Rome created a demand for labour and supplies (food – which itself

⁷¹⁶ Robert Witcher, ‘Regional Field Survey and the Demography of Roman Italy’, in eds. De Ligt, L., and Northwood, S., *People, Land and Politics*, 294-297

⁷¹⁷ The settlement of the *ager Veientanus* in 390 assigned allotments of 7 *iugera* to Roman citizens; Livy, XXXIX. 44. 10 says that allotments at Potentia and Pisaurum (184) were of 6 *iugera*. In 183, at Modena, they were of 5 *iugera*, 8 *iugera* at Parma, and 10 *iugera* at Saturnia (Livy, XXXIX. 55. 7-9); at Graviscae (181) settlers received 5 *iugera* each (Livy, XL. 29. 1-2), while 6.5 *iugera* at Luna (177). See Rathbone, ‘Poor Peasants’, 307-308. Also see Roselaar, *Public Land*, 183

⁷¹⁸ Robert Witcher, ‘Settlement and Society in Early Imperial Etruria’, in *JRS* 96 (2006), 97-98; Rathbone, ‘Poor Peasants’, 306; Launaro, *Peasants and Slaves*, 45-48; all of these offer a scenario in which the results of survey recoveries suggest that it would be hard to imagine this group of poor citizens without increasing the overall number of people in the countryside, but, at the same time, they also suggest the presence of a reasonably wealthy peasantry. Also see Kron, ‘The Much Maligned Peasants’, 105: “Roman coloni could make a respectable income even from a plot of few iugera.”; Kron, ‘Food Production’, 169-170 highlights the recovery of large range of high quality ploughs probably purchased from nearby urban markets.

⁷¹⁹ Hin, *The Demography of Roman Italy*, 344-349

⁷²⁰ Livy, XXXIX. 3: “...even by that time (187) the large number of foreigners was becoming burdensome for the city.”; Rosenstein, *Rome and the Mediterranean*, 240 and 246-247; John Patterson, ‘The City of Rome’, in eds. N. Rosenstein, N., and Morstein-Marx, R., *A Companion to the Roman Republic* (Malden, 2006), 351; Hin, *The Demography of Roman Italy*, 210-211, 218-221

required transportation, harbor, warehouse facilities and marketing – shelter, clothing, shoes or tools⁷²¹). In addition, the requirements of the wealthy elite needed serving and these might include more luxurious goods. The availability of work in the city – also provided by the military requirements, as we will soon see – encouraged the migration of Romans and Italians from the countryside to the towns.⁷²²

This migration was, according to Gabba (later reinforced by Hopkins), focused on Rome, which was benefiting from the income of empire, though we may argue that other Italian cities were probably also growing, though not at the same level, and received an in-flow migration from the countryside.⁷²³ We can look at some examples: other than Rome itself, in Latium we have to consider Ostia (considered an important target for migration even by Gabba⁷²⁴), but Fregellae as well – especially during the first part of the second century, before its destruction.⁷²⁵ We should also consider the Campanian towns (for example, Neapolis, Capua, Cuma or Puteoli⁷²⁶) and the major Northern Italian cities as well – Strabo, after all, clearly says that Cisalpine Gaul had a large free population, and the towns were large and wealthy.⁷²⁷ Cities like Placentia, Cremona, Bononia, Parma, Mutina, Aquileia and Luna not only were much larger than simple agro-towns, but were also important communication and trade centres.⁷²⁸

On a final note, Lo Cascio looks at the economic effects of the urban expansion in Roman Italy:

“Quanto alle altre città dell’Italia, è probabile che la maggior parte di esse si approvvigionasse di grano nelle zone più prossime. [...] Quel che è incontrovertibile è che la sempre più spinta urbanizzazione, legata al complessivo incremento della popolazione anche per effetto dell’importazione di schiavi, deve avere rappresentato un potente incentivo all’ampliamento delle

⁷²¹ See Kron, ‘Food Production’, 161 on the well-known Monte Testaccio site, a dump of a huge quantity of amphorae that shows the scale of the distribution and consumption of oil in Rome.

⁷²² Rosenstein, *Rome at War*, 145; De Ligt, *Peasants, Citizens and Soldiers*, 163; also see William Broadhead, ‘Rome’s Migration Policy and the so-called *ius migrandi*’, in *Cahiers Glotz* 12 (2001), 81-83 and 89 against the *ius migrandi*.

⁷²³ Gabba, ‘Italia Romana’, 102; Hopkins, *Conquerors and Slaves*, 68-69; Kron, ‘Food Production’, 161

⁷²⁴ Gabba, ‘Italia Romana’, 106

⁷²⁵ Fregellae was located on important communication lines between Latium and Samnium, and for this reason was a very important market center, thus it is highly plausible that attracted large number of immigrants from the surrounding areas. Livy, XLI. 8 reports the complaints of the Samnites and Paeligni regarding 4,000 of their families who moved to Fregellae. See also Strabo, V. 3. 10 on the passed importance of Fregellae.

⁷²⁶ Morel, *Early Rome and Italy*, 505 on Puteoli: “...it became Rome’s main sea harbor, retaining this position until the expansion of Ostia in the first century AD.”

⁷²⁷ Strabo, V. I. 12

⁷²⁸ Luuk De Ligt, ‘The Population of Cisalpine Gaul in the Time of Augustus’, in eds. De Ligt, L., and Northwood, S., *People, Land and Politics*, 156: “We also know that Placentia and Cremona each received 6,000 male colonists, a figure which increases to c. 21,000 if women and children are included.”

aree coltivate, quanto all'intensificazione e alla razionalizzazione delle colture."⁷²⁹

Growing cities needed wheat and all other varieties of supplies in order to sustain their growth, and, as a consequence, rural areas were expanded and production intensified, resulting, plausibly, in a better balance between cities and rural inlands – also in terms of migration – than compared to Rome. It seems more likely that settlement patterns were developing in different ways in different regions and that there was overall a continuous presence of rural smallholders over varying levels of prosperity within the Italian landscape.⁷³⁰ If there was no crisis in the rural economy of Roman Italy, we must also reassess the impact of military service on settlement patterns and economics.

* The army and economy of the second century

The impact of the army to the economy has also been reassessed in recent years. Rosenstein in particular has argued that military service (in terms of levels of recruitment) did not unsettle the traditional peasant economy. Both he and Erdkamp have argued that the rural economy of Republican Italy was likely to have experienced high levels of structural underemployment. Service in the army could be seen as a means of employing that labour and for that labour to be rewarded.⁷³¹ Military service might have been actually beneficial in terms of economic effects. Also, as Harris, and Philip Kay more recently, have demonstrated, service in the army was potentially very remunerative because of possibilities of the income extra to the *stipendium*, like donatives or booty.⁷³² Also, the economic impact of the army, was not limited to those who were actually serving in the legions, but was much more widespread.

Direct impacts focused on those who were in military service and in receipt of regular payments, donatives, booty, and sometimes land. Of course, the risks of service in the legions are also obvious: first and foremost, the possibility of being killed or injured. Also, the chance that the soldiers' families might experience economic difficulties during their absence.⁷³³

⁷²⁹ Lo Cascio, *Crescita e Declino*, 52

⁷³⁰ Witcher, 'Settlement and Society', 122; Kron, 'Food Production', 161: "Rome was the wealthiest and most important urban market in the pre-industrial world, and the demand it created for agricultural produce spawned a dense network of villas and horti packing Rome's suburbium. But Rome was hardly the only megalopolis of the empire, and would have represented only a modest proportion of the overall market for agricultural produce."

⁷³¹ Erdkamp, *Hunger and the Sword*, 269 and Rosenstein, *Rome and the Mediterranean*, 113

⁷³² Kay, *Rome's Economic Revolution*, 287-288 and 21-42; William Harris, *War and Imperialism in Republican Rome 327-70 BC* (Oxford, 1979), 93-104

⁷³³ See Valerius Maximus, IV. 4. 6 on the negative effects of service during Regulus' campaign.

Indirect impact is not much discussed; the army was integrated into the Roman economic system. The legions required a constant supply of food, and all sorts of military and non-military equipment. All of this, starting from the production until the distribution, required labour. In the discussion that followed the Second Punic War chapter, we have highlighted the importance of military industry during a major conflict as a source of employment, and the movement of resources and cash that it instigated. At the same time, we have argued that Rome started a great intensification of its agricultural production in Central Italy during the war in order to give food to the large number of legions distributed over the Mediterranean, a process that is also connected with the development of the *villae* system.

By the second century, most of the legions were stationed and served outside of peninsular Italy. This made supply more complex and expensive. Roman troops were directly supplied by Italian production up until the Second Punic War, but with the deployment of the army overseas during the second century, the provinces received the task of sustaining the legions stationed on their territories.⁷³⁴ Lo Cascio suggests that the presence of Roman garrisons was a strong incentive for local production, and triggered long-range trade, especially during the wars in the East.⁷³⁵ During these conflicts, allied states – such as Carthage, Numidia or Pergamum – were involved in the supply of the Roman army.⁷³⁶

Nevertheless, Italy was never excluded from its role of primary supplier of the army.⁷³⁷ By looking at Tacitus, we might suspect that, progressively, things changed and that Italy gradually lost this role, but by the second century its key position was unquestionable.⁷³⁸ The only difference was that now it was not the only supplier, and probably, we might add, it couldn't be the only one anymore.

⁷³⁴ On the shipments of corn from Etruria during the Second Punic War see Livy, XXV. 15; XXV. 20; XXV. 22; XXVII. 3. See Alan Bowman, *The Vindolanda Writing Tablets*, (London, 1994), 33-34 illustrates the importance of supplies of food, military and non-military equipment.

⁷³⁵ Hilary and John Travis, *Roman Body Armour* (Stroud, 2011), 132 suggest that Caesar, during his campaign in Gaul, employed allied Gallic craftsmen in order to improve the quality of his soldiers' equipment. Elio Lo Cascio, 'L'Approvvigionamento dell'Esercito Romano: Mercato Livero o "Commercio Amministrato"?', in eds. Lo Cascio, E., and De Blois, L., *The Impact of the Roman Army*, 198

⁷³⁶ On shipment of African supplies during the Second Macedonian War, see Livy, XXXI. 11; XXXI. 19; XXXII. 27. Regarding the allied contributions from Carthage and Numidia during the Syrian War see Livy, XXXVI. 3 and XXXVI. 4, while see Polybius, XXI. 20 and Livy, XXXVII. 37; XXXVII. 53 on the supplies from Pergamum. On the African shipment during the Third Macedonian War, see Livy, XLIII. 6

⁷³⁷ Morley, *Metropolis and Hinterland*, 71 says that Campanian wine amphorae have been found on the northern frontiers of the empire.

⁷³⁸ Tacitus, *Annales*, XII. 43: "But, heavens! Italy once transported her legions' provisions into distant provinces."

The Second Punic War showed that Italy was able to sustain large armies – much larger than those in service during the entire second century –, but the growing distances and complexity of the whole process caused by the expansion of the Republic made the participation of the provinces and of the allied states necessary. After all, we have to consider the increasing demand of the internal market: cities, Rome in particular, but, as we mentioned, others as well, were growing; the rural population as well, as we argued, was not declining. So, it is possible to remark that the frequent warfare of the second century was actually positive for Italy itself. Due to the fact that the legions operated or were stationed in the provinces or in bordering territories, from the end of the Second Punic War, peninsular Italy knew a long period of peace until the break of the Social War.

While still essential for the supply of the legions, during the second century Italy was under less military pressure, and this allowed a redirection of part of its resources toward the internal market. This period of peace allowed the Italian population to save or invest, as suggested by Dyson:

‘Certainly the Roman countryside was not one of total peace, as the literary evidence for bandits and the archaeological evidence for violent destruction make clear. However, there was historically a relatively high level of peace, and that allowed the country-dwellers to go about their business, investing, saving and spending in a way that would not be possible in less secure times’.⁷³⁹

In the following section of this chapter we will investigate the strategies adopted by the Roman citizens (and probably by the Italians as well) in order to find a balance between their everyday life and military service.

* Military service: strategies and finding balance

A key question that we have been asking throughout the thesis is whether military service was problematic for Roman citizens. We need to understand whether the constant absorption of men from the countryside by the army progressively weakened the small farming sector. The next part of the chapter will explore various strategies employed by the families to counterbalance military service, and showing

⁷³⁹ Dyson, *The Roman Countryside*, 105

that they were not necessarily dependent on the labour of a single adult male. The key possible strategies were:

i) Replacing those required for military service with alternative sources of free labour from the extended family or wage labour.

ii) Supplementing household labour requirements with slave labour: it is often assumed that ownership of slaves was concentrated among the aristocracy.⁷⁴⁰ This model has been recently challenged by Rosenstein and De Ligt who argue that the spread of slave ownership was probably wider than previously believed.⁷⁴¹ We should consider the possibility that the constant inflow of slaves – especially during the second century – made slave owning possible for a moderately wealthy peasantry class. In such circumstances, slavery may have had a positive effect on the ‘middling-small’ class of farmers by providing them with reliable and flexible additional labour inputs and, of course, by replacing the labour of those temporarily absent because of military service.⁷⁴²

We might suggest that citizens of the third class (whose property requirement, according to Livy, was at least 50,000 *asses*) were wealthy enough to be slave owners. It is plausible to include in this middling group members of the fourth class as well – who owned property worth between 25,000 and 50,000 *asses*.⁷⁴³ The third and fourth classes, were likely an important part of manpower available for the military.

We should also consider the possibility that even members of the fifth class were slave owners. Even if some in this group were very poor, and constantly struggled for survival, their property requirement during the first half of the second century ranged from a minimum of 4,000 *asses* to a maximum of 25,000 *asses*. Further suggestion of the spread of slave-ownership is the *Lex Fufia Caninia*; not only it

⁷⁴⁰ See Hopkins, *Conquerors and Slaves*, 30

⁷⁴¹ Rosenstein, *Rome and the Mediterranean*, 115 and *Rome at War*, 163; also see Luuk De Ligt, ‘The Economy: Agrarian Change during the Second Century’, in eds. Rosenstein, N., and Mostein-Marx, R., *A Companion to the Roman Republic* (Malden, 2006), 600-601

⁷⁴² Ulrike Roth, *Thinking Tools. Agricultural Slavery between evidence and models* (London, 2007), 113 highlights the role of female slaves in the manufacture of wool and textiles.

⁷⁴³ On the third and fourth classes census requirements see Livy, I. 43; regarding the third class being considered slave owners, see Livy, XXIV. 11 and XXVI. 35

highlights the scale of ownership, but also, I believe, how spread it was among citizens of all classes, since it covers the freedom by will from one slave to more than five hundred slaves.⁷⁴⁴

Rathbone and De Ligt suggest that 4,000 *asses* – the minimum property requirement for service in the legions during the first half of the second century – was the value of 5 *iugera* – the minimum amount of land received by Roman colonists during the second century.⁷⁴⁵ Rathbone also adds the very concrete possibility that property values were very variable: “...Romans presumably had some notional scale of landholding in mind which corresponded to the cash figures, and minima of 100, 75, 50 and 25 *iugera* for the first four classes seem plausible to me, which would imply a notional 4 *iugera* for the fifth classis.”⁷⁴⁶ Hence, we can suggest that land was valued at 1,000 *asses* per *iugerum*. In this way we can see that fifth class citizens had properties valued between 4,000 and 25,000 *asses* (so between 4 and 25 *iugera*), and we can thus categorize them as small farmers. Of course, this is the easiest way to look at this as not only, as mentioned by Rathbone, property values were flexible, but we also have to consider the difference in the value of land. As we would expect, it is something that we cannot possibly quantify, but it is not inconceivable to believe that, for example, land in the *suburbium* of Rome or in Campania was more valuable than land in some remote part of Italy or in the provinces. For this reason, we should consider that when the sources mention the extension of plots of land, they are just telling us a part of what we should know; maybe 1,000 *asses* per *iugerm* was a sort of standard rate, but we might consider higher or lower prices depending on the location of the land.

Small farmers who owned at least 20 *iugera* might have the resources to buy a single slave, and that would be enough to supplement and, if necessary, replace the labour of the smallholder.⁷⁴⁷ It seems probable that a person in Roman Italy was able to manage between 7 and 10 *iugera*.⁷⁴⁸ Since, as Rathbone suggests, farms between 5 and 12 *iugera* were sufficient for subsistence, those modest size did not require high levels of manpower, as they could have been covered by one or two labourers (free or not). Yet, labour requirements for a small farm are flexible and they depended on the intensity and type of production. For example, vineyards require a higher number of workers during specific parts of the year,

⁷⁴⁴ See Gaius, *Institutiones*, I. 43

⁷⁴⁵ Rathbone, ‘Assidui and Prima Classis’, 145; De Ligt, ‘Roman Manpower Resources’, 13

⁷⁴⁶ Rathbone, ‘Poor Peasants’, 308

⁷⁴⁷ We have to consider that the description of the *lex Fufia Caninia*, which regulated the number of slaves a slave owner was allowed to set free if it is, mentioned the case of someone who owned also one slave (see Gaius, *Institutiones*, I. 43)

⁷⁴⁸ Pliny, *NH*, XVII. 215: “In Italy a gang of ten farmhands is enough for a hundred iugera of vineyard”; De Ligt, ‘Agrarian Change’, 600: “...it took one slave to work 7 iugera”

while mixed farming involves more constant labour. A small farm of 7 *iugera* could employ additional wage labour to meet particular demands or permanent labour (slave or free) to intensify production (see the case of Regulus' farm, below), but could have been worked by a single farmer if required.

Scheidel argues that the number of slaves was increasing already during the third century though both Jongman and De Ligt opt for low estimates for the number of slaves employed.⁷⁴⁹ The gradual abandonment of the 'villa schiavista' model further suppresses estimates of the demand for slaves; it seems likely that during the second century a significant element of the slave population would be absorbed in the towns. Although small farms could only have absorbed relatively small number of slaves each, cumulatively, this sector might have been a significant user of slave labour and such increases in labour may have allowed increases in productivity. Rosenstein warns us that although 'slaves may often have substituted for a master when he went off to war, ... it is well to remember that unfree laborers require supervision'.⁷⁵⁰ Yet there was probably a collective interest among Roman agriculturalists in disciplining slaves and supervision might have been carried out by the women of the family more easily than they could have worked the fields. Large landowners probably had personnel to watch their slaves.⁷⁵¹

The survey evidence indicates a moderately prosperous countryside, in which, we might expect, relatively small farms were generating surpluses sufficient to allow the purchase of slaves. Furthermore, we might reasonably expect that small farmers, especially those close to major urban centres would have had easy access to slave markets and that returning soldiers would have been able to either invest their *stipendia* or any supplementary rewards in slaves or to have laid their hands on slaves at minimal cost following the successful completion of a campaign. Indeed, it might be that soldiers were in a privileged position with regard to purchasing slaves. Consequently, it seems likely that slave ownership would spread into those classes which supplied the army with its manpower.⁷⁵²

⁷⁴⁹ Hopkins, *Conquerors and Slaves*, 9, 55, 102 suggests that there were about 2 million slaves in Italy by the end of the first century. Walter Scheidel, 'The Roman Slave Supply', in eds. Bradley, K., and Cartledge, P., *The Cambridge World History of Slavery* vol. I (Cambridge, 2011), 294-295 shows the scale of wartime enslavement. Also see Willem Jongman, 'Beneficial Symbols. Alimenta and the Infantilization of the Roman Citizen', in eds. Jongman, W. and Kleijwegt, M., *After the Past, Essays in Ancient History in Honour of H. W. Pleket* (Leiden/Boston, 2002), 62-70; De Ligt, 'Agrarian Change', 600

⁷⁵⁰ Rosenstein, *Rome at War*, 58

⁷⁵¹ Cato, *de Agricultura*, IV says that owners should control their slaves, but it might suggest a sort of control among neighbors.

⁷⁵² A possible case of this can be the plundering of Epirus in 167, as described by Livy, XLV. 34: "...the Senate had granted Paullus' troops the booty from the cities of Epirus..." so, it is possible that the soldiers received some of the 150,000 war prisoners mentioned by Livy.

We have very little evidence for the price of slaves, which is likely to have varied considerably anyhow since large numbers of slaves would have come into the market in short periods following the completion of successful campaigns. The total number of slaves is also difficult to estimate. For the third century, Scheidel collects figures for the scale of wartime enslavement – although some of the reports regarding the numbers of slaves may well be exaggerated. Between 58,000 and 77,000 people were supposedly enslaved in the Third Samnite War (297-293). For the Pyrrhic War (280-272) we know of the 30,000 Tarantines enslaved after the fall of the city although, overall, the total number was probably higher. The First Punic War (264-241) generated between 100,000 and 130,000 slaves, and finally, 32,000 were captured during the Gallic War (225-222). We can see that between 220,000 and 269,000 people were enslaved as a consequence of Roman warfare from the beginning of the third century to the eve of the Second Punic War – when, according to the census figures, in 219 the number of registered Roman citizens was of 270,000. It is not necessarily the case that all these slaves ended up in Italy: some may have been sold on the Mediterranean slave markets, but if Rome's slave population was 200,000 on the eve of the second Punic War, it was still a significant contribution to Italian manpower and it is difficult to believe that the senatorial aristocracy absorbed even half that number.⁷⁵³

For the second century, Scheidel's list is less precise, but this does not change the fact that the inflow of slaves caused by the military action remained extremely high.⁷⁵⁴ During the various campaigns of the first half of the second century (between 201 and 168) a total of 153,000 slaves were seized by the Roman army. The sack of Epirus of 167 alone generated 150,000 more slaves, while Carthaginian prisoners taken during the final phases of the Third Punic War were at least 60,000.⁷⁵⁵ Finally, when both the German tribes of the Cimbri and Teutones were destroyed (102-101), 150,000 of them were captured.⁷⁵⁶ These figures suggest that 513,000 people were enslaved by the Roman army during the second century, and yet this is only but a part of a larger total. It is clear, as we can see, that a major part is missing from our sources: the number of slaves captured during the campaigns of the second half of the second century (during the Spanish campaigns between 155 and 133, in Greece, Illyria, Transalpine Gaul, and later in

⁷⁵³ Walter Scheidel, 'Slavery', in ed. Scheidel, W., *The Cambridge Companion to the Roman Economy* (Cambridge, 2012), 103: "...no need to assume that all war captives were employed by Romans [...] slaves may have been sold to Greek or Punic traders."

⁷⁵⁴ Scheidel, 'The Roman Slave Supply', 294-296

⁷⁵⁵ On the pillage of Epirus see also Plutarch, *Aemilius Paulus*, 29; Appian, VIII. 18. 126 says that 10,000 people were captured at Nepheris, while VIII. 19. 130 on the 50,000 people who surrendered at Byrsa.

⁷⁵⁶ On the Teutones and Cimbri captured respectively at Aquae Sextiae and Vercellae, see Livy, *Per.* 68

Numidia). These numbers, although they seem very high, should not fool us; as remarked by Scheidel: "...imports did not only contribute to net increase but also served to maintain the existing servile population."⁷⁵⁷

From the third century, we have the well-known and no doubt exceptional case of Atilius Regulus' farm. According to Valerius Maximus, he owned 7 *iugera* of land in Pupinia, but when on campaign in Africa (256-255), the *vilicus* of his farm died, and a hired laborer stole the farm equipment and escaped, putting his wife and children in danger.⁷⁵⁸ Supposedly, and in spite of his social and political connections, his family were reduced to passive starvation before the senate intervened.⁷⁵⁹ While Regulus was away, his farm was managed by two men, perhaps suggesting that this was the necessary labour required for such a small farm, one of whom, the *vilicus*, is likely to have been a slave. The wage labourer, who stole the farm equipment, may have been used to replace the labour of Regulus himself. Although this hardly be taken as reliable evidence for the staffing of small farmsteads, we might read the anecdote as assuming that such farms would have some servile labour.

Somewhere below this economic level, slave ownership would have become impossible. In the second half of the second century, the census requirement for service in the legions was furtherly reduced to 1,500 *asses*, possibly the nominal value of 2 *iugera* of land.⁷⁶⁰ These poorer citizens did not have the means to purchase or maintain a slave, so, during periods of absence due to military service, they had to fall back on the labour of family members, including women and minors, though the labour necessary to farm such tiny plots would also have been comparatively little.⁷⁶¹

It seems unlikely that military service placed significant strain on small farms during the third and second centuries. Farmers had a range of possible strategies at their disposal which would allow them to manage the labour shortages caused by military service.

⁷⁵⁷ Walter Scheidel, 'Roman Slavery and Manumission', 110

⁷⁵⁸ Valerius Maximus, IV. 4. 6; the term *vilicus* can be translated as factor, but since it is clear that he was hired by the family, also as the administrator/supervisor. Regarding the other hired laborer, Valerius says: "*occasionemque nancum mercennarium amoto*".

⁷⁵⁹ Rosenstein, *Rome and the Mediterranean*, 114

⁷⁶⁰ Rosenstein, *Rome at War*, 57

⁷⁶¹ Rosenstein, *Rome and the Mediterranean*, 115

iii) Military service: in his *Conquerors and Slaves*, Hopkins offers a very negative view on military service during the second century.⁷⁶² He presents service in the army as a form of emigration that allowed rich owners to expand their *villae*. Yet, as we will suggest on this chapter, service in the legions was more likely to have been advantageous for small farmers and poorer citizens. Additionally, the army also had an economic impact indirectly through its demands for resources, food and equipment.

- Direct contributions

Military service provided an alternative occupation for many citizens and, as a consequence, removed surplus labour from the countryside. Erdkamp notes that:

“The levels of mobilization that became structural in the second century BC did not pose a threat to the survival of the smallholder. The resources of the empire provided the means to sustain a large and permanent military force, which constituted a permanent alternative means of subsistence for large numbers among the population of Italy. Moreover, while in times of relative peace the agricultural labour of these men would provide their subsistence, in times of increased military effort the withdrawal of their labour would not cause a proportionate decline in production.”⁷⁶³

After the reduction of census requirement from 4,000 to 1,500 *asses*, military service was open to poorer citizens whose families owned fields that were too small to sustain or employ all of them, so the army became an alternative to underemployment. As Rosenstein puts it, ‘conscripting an adult son did not deprive a family of an essential worker, but rather removed surplus labor’.⁷⁶⁴

The most basic benefit offered by the army was the *stipendium*. This was likely to have been a lure for poorer citizens, perhaps encouraging the tendency to move from a conscript army to a volunteer army during the second century. In his description of Spurius Ligustinus’ career, Livy shows that he rotated relatively short periods of military service with years of civilian life.⁷⁶⁵ This pattern would have allowed

⁷⁶² Hopkins, *Conquerors and Slaves*, 28-37

⁷⁶³ Erdkamp, *Hunger and the Sword*, 269

⁷⁶⁴ Rosenstein, *Rome and the Mediterranean*, 113

⁷⁶⁵ See Livy, XLII. 34: Ligustinus first joined the army for four years (200-197) before his legion was disbanded. Then, after two years (197-195), he volunteered for a second period of service under Cato in Spain (195-194) before another pause of three years (194-192). He rejoined the army to fight against Antiochus, but returned to Italy when the Syrians were driven out of Greece – so he did not take part to the full campaign – (192-191). After that he alternated period of pause from service with

citizens to spend time accumulating capital with the legions and also to have years on the farm and with the family, tending to the needs of both. The mixing of military and agriculturalist careers may have worked to the benefit of the family, provided, of course, the soldier was successful in not getting himself killed.

Conflicts such as the Third Macedonian War and the Third Punic War encouraged volunteers to join the legions, and the case of Ligustinus suggests conflict between veterans and younger soldiers over access to the benefits of service.⁷⁶⁶ The war against Perseus also emphasizes the role of soldiers who received promotions during the second century. Ligustinus, by saying that he was promoted as ‘centurion of the tenth company of *hastati*’ by the end of his first period of service, gives a clear indication of a well-defined hierarchy in the Republican legions.⁷⁶⁷ If we look at his description of the army, Polybius explains the basic military chain of command of the Roman infantry: *hastati*, *principes* and *triarii* were divided into ten maniples, and each of them were under the command of two centurions and two *optiones* (junior officers).⁷⁶⁸ The first centurion of the first company of *triarii* was the most important, the second of the tenth company of *hastati* was the least important. We don’t know if there was a difference in payment between the different centurions or if they were considered all the same, but they were paid more than the *optiones*, who were paid more than the soldiers.⁷⁶⁹ Because their *stipendia* were higher compared to regular soldiers, officers (and centurions in particular) had stronger motivations to rejoin the army for further campaigns, since even their basic pay was a decent income. Additional benefits, as

two short yearly campaigns. Then he went to Spain for a longer period of service under Fulvius Flaccus and Tiberius S. Gracchus (182-178).

⁷⁶⁶ Livy, XLII. 34 shows that Ligustinus, at the end of his first service, was promoted: “In my third year, because of my bravery, Titus Quinctius Flaminius raised me to the rank of centurion of the tenth company of *hastati*.” Ligustinus was 50 when he spoke to the people during the call to arms against Macedonia in 171, and said that he first joined the army at the beginning of the Second Macedonian War (200), so when he was 21, thus he was 24 when he was promoted for the first time. After the end of the war he continued his career in the army, but as an officer (so with an higher pay), and was promoted on other occasions.

⁷⁶⁷ Livy, XLII. 34: “...tertio anno virtutis causa mihi T. Quinctius Flaminius decimum ordinem hastatum assignavit.”

⁷⁶⁸ Polybius, VI. 24: the first centurions were known as *centuriones priores*, while the seconds as *posteriores*. The *optio* were an essential part of the legions as they relieved the centurions of many administrative duties. David J. Breeze and Brian Dobson, *Roman Officers and Frontiers* (Mavors, Stuttgart, 1993), 36 show that being an *optio* was a fundamental part in a military career even in the Imperial army. It is possible that Ligustinus, before becoming centurion of the tenth company of *hastati*, was promoted as *optio* (after all he served for three years before he became a minor centurion), but maybe it was not worth mentioning it during his speech as it was a basic step for a military career.

⁷⁶⁹ According to Polybius, VI. 39 centurions received twice as much as normal soldiers (so 216 *denarii* per year). Breeze and Dobson, *Roman Officers and Frontiers*, 62-63 say that in the Imperial army junior officers received a pay and a half (*sesquiplacarius*). We might consider that during the Republic there was a similar subdivision of payment, so that *optiones* received 162 *denarii* per year.

we will shortly see, made further service more appealing and we might see the case of Ligustinus as an early example of semi-professional military career.⁷⁷⁰

The majority of a legion's personnel was made up of regular soldiers, and their *stipendium* was set at a low level, probably little above subsistence. The financial benefits of military service were probably more in terms of donatives, booty and the possibility of receiving land.⁷⁷¹ As Livy notes at the beginning of the Third Macedonian War, 'large numbers volunteered since they saw that those who had served in the earlier Macedonian war and against Antiochus in Asia had become wealthy men'.⁷⁷² The Third Macedonian War met these expectations. At the end of the war (167) the soldiers were rewarded with 100 extra *denarii* for each infantrymen, 200 *denarii* for centurions and 300 for cavalrymen.⁷⁷³ Furthermore, we have to add in the booty from Epirus: according to Livy, each infantrymen received 200 *denarii*, while the cavalrymen got 400 – and we don't know how much was given to the centurions.⁷⁷⁴ There may also have been benefits to the soldiers from the slaves taken: a total of 150,000 prisoners were supposedly taken from Epirus and at Pydna alone 11,000 Macedonian soldiers were captured.⁷⁷⁵ The soldiers recruited in 169 remained in service until the end of the war (167).⁷⁷⁶ Soldiers managed to make a considerable amount of money in just three years of campaign: an infantryman earned in total 624 *denarii* (324 for three years of service + 200 in Epirus + 100 as donative), a centurion probably a total of 1,248 *denarii* (648 for three years of service + probably 400 in Epirus + 200 as donative), and finally a cavalryman a plausible total of 2,196 *denarii* (1,296 for three years of service + probably 600 in Epirus + 300 as donative). Of course, not all military campaigns were as rewarding as this one, but the case of 167 shows the potential wealth offered by service in the army. Furthermore, we can emphasize once again the advantages offered to the officers: not only was their pay higher, but they also received more in terms of donatives, and land – as we will see in the colonization section.

⁷⁷⁰ On the pay of centurions, see Polybius, VI. 39

⁷⁷¹ Also see Edward Bispham, *From Asculum to Actium* (Oxford, 2007), 137 on the distribution of donatives between Romans and allies.

⁷⁷² Livy, XLII. 32

⁷⁷³ Livy, XLV. 40

⁷⁷⁴ Livy, XLV. 34: usually centurions received double than infantrymen (as their pay was double), and cavalrymen three times more than infantrymen; so, it is possible that, if soldiers received 200 *denarii*, centurions received 400 *denarii* and cavalrymen 600 *denarii*.

⁷⁷⁵ On the number of prisoners at Pydna see Livy, XLIV. 42 and Plutarch, *Aemilius Paullus*, 22

⁷⁷⁶ Livy, XLIII. 12, he also tells us that the legions previously in service there were disbanded.

Philip Kay suggests that booty collected during the period 200-157 could have been about 18,250 *talents* (109,500,000 *denarii*).⁷⁷⁷ This is a huge sum, especially since it excludes various form of wealth that they might have gathered (slaves in particular).⁷⁷⁸ Also, Kay's figures don't include the plundering of Carthage in 146 after the Third Punic War, and the parallel looting of Corinth, both actions which must have transferred very considerable sums to Italy.⁷⁷⁹ Some part of the booty would have been deposited in the temple of Saturn to fund future public expenditures (temples, roads, aqueducts, military pay, etc). Rome probably maintained large capital reserves.⁷⁸⁰ Nevertheless, the inflow of capital likely boosted the monetization of Roman Italy with consequent economic benefits.⁷⁸¹ An example of public usage of booty is offered by Livy: in 187, Gnaeus Manlius distributed part of the booty from Galatia was used to reimburse what citizens had paid in previous *tributa*.⁷⁸²

We can try quantifying the amount of cash that was moved because of the army: in the first decades of the second century (up until the late 180s), we can calculate the pay bill for a standard Polybian legion (4,080 legionnaires, 60 centurions, and 60 *optiones*, and 300 cavalrymen) at 560,520 *denarii* per year.⁷⁸³ The annual cost for eight legions would increase to 4,743,200 *denarii*. After 182, however, as we have argued in the previous chapter, the number of Roman citizens in service in the legions was increased, thus changing as well their economic impact in terms of costs.

In the second part of the second century, there was a shifting level of military activity; in order to have a clearer picture of Rome's military costs, we can look at two different periods of the second century on two tables. On both cases we are using legions of 5,500 Roman citizens each, and we are looking at soldiers and cavalry only (we are excluding both centurions and *optiones* because we are not sure how

⁷⁷⁷ Kay, *Rome's Economic Revolution*, 30

⁷⁷⁸ Regarding booty, Polybius, VI. 33 reminds us that Roman soldiers took an oath to turn over plunder to the tribunes, just like Polybius, X. 12.2-17.5 describes the plundering of cities.

⁷⁷⁹ On the army deployed by Rome against Carthage in 149 see (p. of this dissertation). Polybius, XVIII. 35 states that it was the richest city in the world, so it is clear that citizens were well eager to put their hands on Carthage's wealth. On Corinth see Polybius, XXXIX. 2 and Strabo, VIII. 6. 28

⁷⁸⁰ Pliny, *NH*, XXXIII. XVII. 56: "Gaius Julius Caesar, on first entering Rome during the civil war that bears his name, drew from the treasury 15,000 gold ingots, 30,000 silver ingots, and 30,000,000 *sesterces* in coin..."

⁷⁸¹ William Harris, *War and Imperialism*, 70-72

⁷⁸² Livy, XXXIX. 7

⁷⁸³ Regular soldiers were paid 3 *asses* per day, so 1,080 *asses* per year (4,406,400 *asses* for 4,080 soldiers), centurions received 6 *asses* per day, so 2,160 *asses* per year (129,600 *asses* for 60 centurions), while cavalrymen 9 *asses* per day, thus 3,240 *asses* per year (972,000 *asses* for 300 cavalrymen). Regarding the *optiones*, we don't know how much their payment was; in the chapter we have suggested that they received more than the soldiers, but less than the centurions, so one pay and a half for 4.5 *asses* per day (97,200 *asses* for 60 *optiones*).

many of them were in a legion after its effectives were increased in the 180s). The first one shows the years between 149 and 146, marked by the highest number of legions in service since the Second Punic War:

YEAR	LEGIONS	CITIZENS IN SERVICE	<i>STIPENDIA</i> INFANTRYMEN	<i>STIPENDIA</i> CAVALRYMEN	TOTAL COST
149	12	66,000	64,800,000 <i>asses</i>	19,440,000 <i>asses</i>	84,240,000 <i>asses</i>
148	15	82,500	81,000,000 <i>asses</i>	24,300,000 <i>asses</i>	105,300,000 <i>asses</i>
147	14	77,000	75,600,000 <i>asses</i>	22,680,000 <i>asses</i>	98,280,000 <i>asses</i>
146	16	88,000	86,400,000 <i>asses</i>	25,920,000 <i>asses</i>	112,320,000 <i>asses</i>

The second table, on the other hand, it is focused on the period between 130 and 125 that, contrary to the previous one, showed a moderate military activity:

YEAR	LEGIONS	CITIZENS IN SERVICE	<i>STIPENDIA</i> INFANTRYMEN	<i>STIPENDIA</i> CAVALRYMEN	TOTAL COST
130	4	22,000	21,600,000	6,480,000	28,080,000
129	5	27,500	27,000,000	8,100,000	35,100,000
128	4	22,000	21,600,000	6,480,000	28,080,000
127	4	22,000	21,600,000	6,480,000	28,080,000
126	6	33,000	32,400,000	9,720,000	42,120,000
125	7	38,500	37,800,000	11,340,000	49,140,000

Even though we don't have the data regarding the officers, we can already have a good idea of the yearly expense required to pay for the army, but, at the same time, the massive amount of cash that was needed and, as a result, circulated in the Roman economy because of the army.

Part of the money spent on the soldiers' *stipendia* actually returned in the form of deductions imposed to the soldiers for food, clothes and equipment.⁷⁸⁴ Allied troops received their food free of charges, but Polybius doesn't mention anything regarding clothing and arms; perhaps they were issued by their communities, as they were responsible to recruit and pay the contingents of *socii*, and thus, probably to equip them.

⁷⁸⁴ Polybius, VI. 39

William Harris, in his influential *War and Imperialism in Republican Rome*, emphasizes the importance of booty:

‘It would be a mistake to regard plunder as the only inspiration of soldiers. [...]. Equally, however, it would be a mistake, an anachronism, to suppose that in a relatively primitive society the desire for plunder could not be a most important influence in driving ordinary citizens to war. This was probably the case in the first half of the second century, and there is evidence that it remained true in the Marian and post-Marian army’.⁷⁸⁵

This financial attractions of military service were probably greater the poorer the potential soldiers were. When the census requirement for service was lowered, and later abolished, it is likely that it brought into the recruitment pool a significant number of eager, but poor, volunteers. Harris also argues that:

‘...many Roman citizens regarded many of Rome’s wars primarily as economic ventures. [...]. Though evidence is slight, it seems likely that some areas which were known, or believed, to be sources of extraordinary wealth – the mining districts of Spain or the kingdom of Pergamum – were regarded by ordinary Romans as especially worth fighting for’.⁷⁸⁶

It is hard to believe that the common Roman soldier was eager to fight for the Spanish mines or for Pergamum, in which others had larger interests (the state itself, traders, etc), but soldiers benefited from continuous warfare, and knew when they could benefit most from a military campaign. Thus the Macedonian and Carthaginian campaigns saw a rush of volunteers, while the Spanish wars, at least until Scipio Aemelianus offered the prospect of a successful conclusion, were rather less popular.⁷⁸⁷

- Indirect contributions

⁷⁸⁵ Harris, *War and Imperialism*, 103

⁷⁸⁶ Harris, *War and Imperialism*, 101

⁷⁸⁷ Already mentioned Livy, XLII. 32 on the willingness of recruits to join the Macedonian legions, see Appian, XI. 75 regarding the Third Punic War.

The army also had an important influence on Rome's economy indirectly. The legions needed to be supplied with food, military and non-military equipment (clothing, pottery, etc) and this required labour, and capital.⁷⁸⁸

The first, and most important, form of supply for every army in history is, of course, food. Rome supplied food to its legions from Italy, the provinces and allied states. Polybius tells us that Roman soldiers received rations from the state, the cost of which was deducted from their pay – while it was free of charge for the allied soldiers.⁷⁸⁹ We can suppose that the constant supply of these standard rations required civilian labour. Italy was of central importance: during the Second Punic War, Etruria and Latium (but we should include Umbria and Picenum as well) were the main food suppliers for both the army and the population until Campania and Apulia were taken back.⁷⁹⁰ As the number of legions increased, a large part of the population was involved in the production and distribution of food for the troops.⁷⁹¹

By the second half of the second century, Roman legions were stationed from Spain to the Aegean area, and, as a consequence, the Republic needed to adapt the supply of its soldiers. If Italy maintained a position of primary importance in the production and supply of food, there were other ways to guarantee the arrival of provisions to the legions.⁷⁹² Once they reached a certain province, or were stationed there, soldiers received the supplies they needed from Italy, the province itself, or from allied cities, tribes or nations.⁷⁹³ When necessary looting enemy territory (a process called *frumentatio*) was an option. Usually

⁷⁸⁸ See Paul Erdkamp, 'The Corn Supply of the Roman Armies during the Principate (27 BC – 235 AD)', in ed. Erdkamp, P., *The Roman Army and the Economy* (Amsterdam, 2002), 49: "The need to sustain large armies for long periods arose during the wars of the third century BC."

⁷⁸⁹ Polybius, VI. 39: "The infantry receive a ration of wheat equal to about two-thirds of an Attic medimnus a month, and the cavalry seven medimni of barley and two of wheat. Among the allies, the infantry receive the same and the cavalry one and one-third medimni of wheat and five of barley. These rations are provided free to the allies..." also see Jonathan Roth, *The Logistics of the Roman Army at War (264 BC – AD 235)*, (Brill, Leiden/Boston, 1999), 224

⁷⁹⁰ On the shipments of corn from Etruria see Livy, XXV. 15; XXV. 20; XXV. 22; XXVII. 3

⁷⁹¹ Broadhead, 'Migration and Transformation', 156-157 on the strong settlement triggered by important trading posts (*emporía*) in Northern Italy whose function was to supply the army (e.g. Victumulae or Clastidium).

⁷⁹² Tacitus, *Annales*, XII. 43: "But, heavens! Italy once transported her legions' provisions into distant provinces." Nicolet, *The World of the Citizen*, 102: "The consul ordered them to report at a given date to their respective enrolment centers, generally in the area where each man was to serve." so it is plausible that soldiers received their supplies during this process – between recruitment and relocation. Livy, XLII. 27 says that the senate sent three *legati* to purchase grain in Apulia and Calabria in order to send it to the troops in Macedonia (171).

⁷⁹³ Roth, *Logistics of the Roman Army*, 227 by the end of the Second Punic War grain contributions from Sicily, regulated by the *lex Hieronica*, were intended for the army and the fleet. Livy, XXIX. 3: in 205 the Spaniards were required by the Romans to furnish clothing and grain for six months to the soldiers. Livy, XLIII. 2 also reports that in 171 the Spanish requested that Roman magistrates ceased to sell the so-called *vicensimae* (5% quota) at an arbitrarily low price or converting the grain tax into money, and certainly, the legions stationed there were an obvious recipient for this taxed grain.

employed during a campaign, this was actually more complicated than we might imagine, mainly because the *frumentatores* required constant protection.⁷⁹⁴ Successful attacks on the foragers might have serious consequences for the operations, as suggested by certain episodes described by Appian in his chronicle of the Spanish Wars.⁷⁹⁵

Roman soldiers also required all sorts of military and non-military equipment; Koenraad Verboven notes that ‘Wherever the Roman army went, a train of merchants, contractors and hangers-on followed’.⁷⁹⁶ From the second century, trade, long-range transportation and the number of people involved in such activities likely increased. The *navicularii*, private businessmen who signed contracts with the state in order to transport food and supplies by sea, became more and more important. The growing importance of sea transportation is attested in the numbers of shipwrecks, which strongly increased during the second century before reaching a peak during the first century.⁷⁹⁷ Transport of soldiers, food and material by sea was essential to the Roman war effort, as we can see, for example, during the Spanish campaigns.⁷⁹⁸ We should suppose that contracts with the army, and sea transport of military furniture was a lucrative business: Livy reports the indignation of the Roman people on the discovery of a large fraud regarding the supplies intended for the Spanish legions during the Second Punic War (212).⁷⁹⁹

During the Imperial period, permanent military bases attracted *canabae*: civilian and probably commercial settlements serving the camp.⁸⁰⁰ Some provincial campaigns might have generated similarly

⁷⁹⁴ On the *frumentatio*, how it was conducted, and the necessity of protection, see Erdkamp, *Hunger and the Sword*, 124-126

⁷⁹⁵ Appian, VI. 9. 55 on the case of Lucullus during his campaign against Pallantia (151): “...the Pallantians continually harassed him with their cavalry while foraging and prevented him collecting forage. As he was running short of food, Lucullus withdrew...”. Appian, VI. 13. 77-78 constantly mentions troubles for the foragers during the operations of Quintus Pompeius against Numantia (142-140); also, Aemilius Lepidus’ siege of Pallantia (136) failed because his army ran out of supplies, see Appian, VI. 13. 82.

⁷⁹⁶ Koernaad S. Verboven, ‘Good for Business. The Roman Army and the Emergence of a “Business Class” in the Northwest Provinces of the Roman Empire (1st Century BCE – 3rd Century CE)’, in eds. Lo Cascio, E., and De Blois, L., *The Impact of the Roman Army*, 297

⁷⁹⁷ Gabriele de Donato, *Mare Nostrum, the Roman Sea* (London: 2003), x-xi; also see Kay, *Rome’s Economic Revolution*, 4-5

⁷⁹⁸ Appian, VI. IX. 47-48 on the difficulties of Nobilior’s army during the winter 153-152; he was replaced by Claudius Marcellus who brought new troops (and probably supplies). Appian, VI. IX. 65: Fabius Maximus Aemilianus received the command against Viriathus; he brought two new legions with him, but relied mainly on local production to supply his troops. Livy, XL. 35 says that consul Aulus Postumius announced to the senate that the reauthorization of pay and grain for the army in Spain was unnecessary, as the Celtiberian revolt had been defeated (180). Appian, VI. IX. 84: Scipio did not bring any new legions with him when he received the command of the war against Numantia in 134.

⁷⁹⁹ Livy, XXV. 3 says that the responsible was Marcus Postumius of Pyrgi – how, at first, was fined of 200,000 *asses* – and was supported by other tax-collectors.

⁸⁰⁰ Verboven, ‘The Emergence of a “Business Class”’, 298: “When permanent army bases were constructed the sutlers settled in *canabae*, forming the nucleus of Roman immigrant communities.”

permanent structures, perhaps at Italica, founded in Further Spain during the Second Punic War, or Aquae Sextiae established in Gallia Narbonensis in the second half of the second century after the campaigns against the Gauls. It is likely though that the mobile legions of the Republic were followed by mobile markets which sought to meet the needs and desires of the soldiers. Soldiers with cash were an opportunity for traders and in provincial conditions especially, it was likely that businessmen recognized the possibilities. Appian suggests that when Scipio assumed command of the operations against Numantia in 134, he expelled all those who accompanied the army.⁸⁰¹

We must also consider products distributed by the state to the soldiers such as clothing and military equipment. Pierre Cosme suggests that ‘sous la République, l’Etat commença probablement par remplacer les armes usages ou perdues au combat’.⁸⁰² State supply of military equipment might have started during the Second Punic War, when the increasing number of soldiers recruited created a substantial demand and the reduction in the census requirement for military service allowed the recruitment of poorer soldiers who might not have had or have been unable to provide a full military kit. Travis suggests that the Republic organized arms factories (*fabricae*) for weapons and military equipment and it looks as though much equipment was stock-piled by the state.⁸⁰³ Cicero seems to highlight on different occasions, the fact that the citizen body was demilitarized and the need for the state to provide arms.⁸⁰⁴

Roman civilians (and probably Italian as well) were normally without arms, it seems plausible that first-century soldiers returned their weapons and equipment at the end of their period of service. After the Gracchan reforms (see below), it seems likely that any equipment which the soldier had not paid for would be the property of the state. Even before the reforms the needs of the army would create moments

⁸⁰¹ Appian, VI. IX. 85: “On his arrival, he expelled all the traders, prostitutes, clairvoyants and diviners...”

⁸⁰² Pierre Cosme, ‘Les Fournitures d’Armes aux Soldats Romains’, in eds. Lo Cascio, E., and De Blois, L., *The Impact of the Roman Army*, 242

⁸⁰³ Travis, *Roman Helmets*, 146, 160

⁸⁰⁴ Cicero, *Pro Rab. Perd.*, 20 mentions state-owned armouries and arsenals: “Arms were taken from the public buildings and arsenals and, under the direction of the consul, Gaius Marius, distributed to the Roman people.”, and Cicero, *Philippics*, VII. 13: “When you ordered levies of troops to be held through Italy and canceled all exemptions, was Antonius not declared an enemy then? You see arms factories in Rome...” also, Cicero, *Phil.* V. 31: “Therefore, members of the Senate, in my judgment no mention should be made of envoys. I think that business should be put in hand without any delay and prosecuted at once. I say that a state of tumult should be decreed, suspension of business proclaimed, military cloaks donned, and a levy held with no exemptions in Rome and in the whole of Italy, Gaul excepted.”. Cicero, *Phil.* VI. 9: “Which should we have sent to this man, envoys or legions? But let by-gones be by-gones. Let the envoys make haste, as I see they will. You, on your side, get your military cloaks ready. For it is so decreed: if he does not obey the authority of the senate, it is military cloaks for us. It will be. He will not obey. But we shall be sorry to have lost many days which might have been actively employed.”

of high demand for military equipment. Between 197 and 196, for instance, the number of legions in service increased from six to ten. This required the recruiting and equipping of 38,400 new soldiers (between Romans and *socii*).⁸⁰⁵ These new soldiers needed helmets, armour, shields, all their different weapons – *gladii*, *spathae*, *pila*, etc). The 4,800 cavalymen also needed horses.⁸⁰⁶ Some of that equipment may have come with the recruits, since those discharged from previous campaigns would be hardly likely to have thrown away their arms, though even in such cases armour would need repair and weapons renewal. Such volumes are well beyond the capabilities of local craft production. Similarly, between 193 and 190 Rome increased the number of legions in service from eight to thirteen, meaning that, between Romans and *socii*, 48,000 men joined the legions, and needed to be equipped.⁸⁰⁷

The rapid fluctuation in the number of legions required also entailed fluctuations in the amount of equipment needed. One presumes that the standardization of equipment over long periods allowed such valuable items to be passed from soldier to soldier and from generation to generation. But even if there were mechanisms for reuse of equipment, mass recruitments, such as that for the Third Punic War, must have triggered a spike in demand. In 150 the main theatre of war was Spain, but that same year the campaigns against Numantia and the Lusitanians came to a temporary hiatus, and the following year (149), there were only two legions in the Spanish provinces, whereas there had been four or six in service the previous year. That same year Rome formed seven new legions for the war against Carthage. Even if the soldiers returned their weapons at the end of their periods of service, most of the soldiers discharged between 150 and 149 were in service in Spain, while the new legions formed in 149 were probably organized and prepared in Italy before being transported to Africa. The war may have required arms for up to 36,000 new recruits.⁸⁰⁸

⁸⁰⁵ On the number of legions in service in 197 see Livy, XXXII. 30; on the number of legions in service in 196 see Livy, XXXIII. 25

⁸⁰⁶ We are still using the strength of the legion suggested by Polybius, VI. 19 and 21: each Roman legion was formed by 4,200 infantrymen and 300 cavalymen, and was reinforced by an *ala sociorum* of 4,200 infantrymen and 900 cavalymen. So, a full strength Roman legion (plus *socii*) counted a total of 9,600 men. Livy, XL. 36 is the first time that larger legions are mentioned, and are dated around the late 180s.

⁸⁰⁷ One the legions in service in 193 see Livy, XXXIV. 53, Livy, XXXV. 20 for the legions in service in 192, Livy, XXXVI. 1 for the legions in service in 191 and Livy, XXXVII. 2 for the legions in service in 190.

⁸⁰⁸ For the 150s onwards, we are using Appian's suggested strength for the legions (6,000 men each) being one of our main – if not the only – source for this period. As said, in 150 there were between 5 and 7 legions in service, meaning a total between 30,000 and 42,000 Roman citizens in the army. In 149 the number of legions increased to 11 (66,000 Romans) due to the Third Punic War, meaning that the number of men under arms increased of 24,000 (if seven legions the previous year) and up to 36,000 (if five legions were in service in 150).

As a final example, we can look at the period from 127 to 124, when the number of legions was increased from four to nine, and the state had thus to provide equipment for up to 30,000 troops. By the last quarter of the second century, many new soldiers were recruited among very poor citizens who could not afford the full military panoply. The financial pressures this placed on them may have been responsible for the Gracchan decision to make state provision for the cost of equipment.⁸⁰⁹ It is probably during this period that military equipment became fully state-supplied, and thus standardized.

Livy shows that supply of clothing for soldiers was controlled by the state before Gaius Gracchus' *lex militaria* (as this dealt with costs for the soldiers, not the supply chain): in 169 the praetor Gaius Sulpicius Gallus let a contract for providing and transporting 30,000 tunics, 5,000 togas and 200 horses for the army in Macedonia.⁸¹⁰ Similarly, it is clear that Scipio organized the supply of weapons at New Carthage, thereby we might imagine that production of both military and non-military equipment was focused in towns, and it was a mean that provided employment for the urban population.⁸¹¹

In the section dedicated to the economic impact of the Second Punic War, we have mentioned the importance of war indemnities as an alternative source of income for the Republic. Considering the fact that Rome imposed heavy indemnities to defeated enemies on several occasions during the first half of the second century, they probably became an important part of the economy of this period, thus we should include them as part of the indirect impact of the army.⁸¹² Between 196 and 188 Rome imposed war indemnities to Macedonia, Boeotia, Sparta, Aetolia, Ambracia, Syria and Cappadocia while, at the same time, Carthage was paying its fifty-year long debt.⁸¹³

⁸⁰⁹ Plutarch, *GC*, 5: "He proposed a number of laws [...] Another, on the army, ruled that soldiers were to be supplied with clothing at state expense (*alia militaris, vestem militi publice suppeditari juben*)..."

⁸¹⁰ Livy, XLIX. 16

⁸¹¹ Livy, XXVII. 17: "He (Scipio) had moreover a very large reserve of weapons, which included those taken at New Carthage and all he had had made after the capture of the town by the numerous workmen he had kept shut up for the purpose."

⁸¹² On the importance of war indemnities also see Kay, *Rome's Economic Revolution*, 37-42

⁸¹³ In 196 Rome imposed an indemnity of 1,000 talents to Macedonia (500 to be paid immediately, the rest in ten yearly instalments of 50 talents each) (see Livy, XXXIII. 30 and Polybius, XVIII. 44); furthermore, the Boeotians were forced to pay 30 talents (see Livy, XXXIII. 29). The following year (195), Nabis of Sparta was forced to pay 500 talents (100 immediately, then 50 per year for the next eight years) (see Livy, XXXIV. 35). In 189 Rome imposed a 500 talents payment to Aetolia (200 immediately, then 50 per annum for the next six years) (see Livy, XXXVIII. 9 and Polybius, XXI. 30 and XXI. 32); this was followed by 150 more talents from the Ambraciots (see Livy, XXXVIII. 9 and Polybius, XXI. 30). In 188 the Romans demanded an indemnity of 15,000 talents to Antiochus III (3,000 paid immediately, the rest in twelve yearly instalments of 1,000 talents) (see Livy, XXXVII. 45; XXXVIII. 37 and XXXVIII. 38; Polybius XXI. 17 and XXI. 42 and Diodorus Siculus, XXIX. 10) and 600 talents from the king of Cappadocia (see Livy, XXXVIII. 37)

To have a better idea of the economic importance of war indemnities, we can look at some individual examples: in 196 Rome received 500 talents from Macedonia, 200 from Carthage and 30 from Boeotia for a total of 730 talents (the equivalent of 4,380,000 *denarii*). In 189 a total of 600 talents (200 from Carthage, 50 from Sparta, 200 from Aetolia and 150 from Ambracia) entered the Roman treasury (hence 3,600,000 *denarii*). Finally, the following year (188), Rome received 3,600 talents (21,600,000 *denarii*) in indemnities from Syria (3,000), Carthage (200), Sparta (50), Aetolia (50) and Cappadocia (300).

If we consider the overall impact of war indemnities, between 201 and 151 – when Carthage paid its last instalment – Rome received a total of 27,480 talents (so an income of 164,880,000 *denarii* in fifty years). This massive quantity of wealth probably circulated in the economy as it was most likely re-invested by the Republic: some families might have received compensation for past *tributa* while others the means to purchase land or equipment.⁸¹⁴ These funds could have been also used to pay soldiers without raising *tributa*, or to finance colonial initiatives (since, as we will see, this was a period of intense colonial activity). Obviously we are not suggesting that Rome simply gave away money, but we should look at the case of the 40,000 Ligurians who, in 180, were moved to Samnium, allocated on *ager publicus* and provided money by the state (150,000 *sesterces*) to start farming.⁸¹⁵ If the Republic went through so much trouble to relocate its enemies, it would not be absurd to suggest something similar for its own citizens and allies, and the indemnities annually paid by defeated enemies would seem like an appropriate source of funds. Although there is not mention of this in the sources, it is an interesting alternative to a scenario in which this wealth was simply hoarded in the *aerarium* or “stolen” by the aristocracy.⁸¹⁶

By looking at both direct and indirect economic impact of the legions we can see that the army was a major source of employment and it generated flows of capital that helped monetized the Roman economy, a process that, as suggested by Crawford, Harl and Erdkamp, had its origin during the expansion of the Republic.⁸¹⁷ Thus, we can see that this process is the result of what started in the fifth century, when military payment was introduced. The increase of military activity should not be regarded simply as a cost/burden for Rome’s finances, but as an important economic instrument that played a part on all levels

⁸¹⁴ Already mentioned Livy, XXXIX. 7 on the distribution of booty to reimburse citizens; it seems thus plausible that the cash from war indemnities could have been used in similar ways.

⁸¹⁵ Livy, XL. 38: the land they received was previously occupied by the Taurasini, so it was probably already equipped for farming, reducing the costs.

⁸¹⁶ See Astin, A., E., ‘Roman Government and Politics, 200 – 134 BC’, in eds. Astin, Walbank, Frederiksen and Ogilvie, *Cambridge Ancient History* vol. VIII, 187; also see De Ligt, ‘Agrarian Change’, 593

⁸¹⁷ Crawford, *Coinage and Money*, 29-51; Kenneth Harl, *Coinage in the Roman Economy, 300 BC to AD 700* (Baltimore/London, 1996), 36-37 and 72; Erdkamp, ‘War and State Formation’, 104-106

of the economy of Rome, from that of the individual soldier and his family, to the whole system of the Roman Republic.⁸¹⁸

* Colonization

Colonies have long been understood as a means by which Rome asserted her power in hostile regions, thereby consolidating her control of recently subjugated areas. The colonies also functioned as a reliable supply of manpower.⁸¹⁹ The more traditional view on colonization focused on the military functions of colonies, but colonies were also means of relieving poverty among Roman citizens and, probably incidentally, a way of spreading Roman government and culture.⁸²⁰ As Bradley writes, ‘As well as changing in function over time, colonies probably meant different things to different sectors of Roman society’.⁸²¹ New citizen colonies would have contributed to increase the numbers of *assidui* available to serve in the Roman army, while Latin colonies would have provided more contingents for the allied forces. The fact that Roman colonists traditionally received small allotments of land – especially if compared with much larger allotments in Latin colonies –, might makes us question the whole efficiency of this strategy.⁸²² Rathbone says, ‘it is implausible that the state settled citizens on allotments which were below the minimum census qualification for *assidui*, that is for military service’.⁸²³ so, we should not be deceived by really small allotments given to Roman colonists, such as the 2.5 *iugera* per colonists at Satricum (385), as they did not count on their tiny fields alone for subsistence.⁸²⁴ During the second

⁸¹⁸ Also see Verboven, ‘The Emergence of a “Business Class”’, 309, although focused on the Imperial period, describes this connection between the army and monetization: “army pay and expenses constituted the main gateway through which currency entered the economy. [...] The military market – from retail business to large official orders – was profoundly monetized.”

⁸¹⁹ Salmon, *Roman Colonization*, 15: “Rome was able thus to rid herself of some landless poor, but that was not the main aim. The chief purpose of colonies was strategic. [...] It was not until the second century that economic ends came to the fore. Before then colonies were founded in order to make the Roman state more secure. There may have been incidental benefit that some paupers were removed from the ranks of the indigent Roman proletariat and made eligible for military service, but the chief consideration was the defense of Roman soil and the establishment of future bases for military operations.”

⁸²⁰ Livy, III. 1 on the foundation of Antium (467): the colony was established on recently conquered Volscian territory, but it was decided to distribute its land among the colonists (both Romans and Volsci), so that it wouldn’t be necessary leasing or selling public land “without disturbing the occupiers of public land”. Also see Dionysius, IX. 59. Appian, BC. I. 7 acknowledges the military function of the colonies, but he also mentions that conquest led to the acquisition and exploitation of land: “As the Romans subjugated the peoples of Italy successively, it was their habit to confiscate a portion of land and establish towns on it or enroll colonists of their own in the towns already on it. They intended these for strongholds.”

⁸²¹ Guy Bradley, ‘Colonization and Identity in Republican Italy’, in eds. Bradley, G., and Wilson, J., P., *Greek and Roman colonization: Origins, Ideologies and Interactions* (Swansea, 2006), 171

⁸²² One of the earlier cases is the settlement of the *ager Veientanus* in the 390s; Livy, V. 30 says that here colonists received 7 *iugera* each.

⁸²³ Rathbone, ‘Poor Peasants’, 308

⁸²⁴ On the case of Satricum, see Livy, VI. 16. Rathbone, ‘Poor Peasants’, 307 suggests that, during early colonization, small allotments were given as a form of booty in addition to the already existing farms. J. C Yardley, *Livy Books 6-10 Rome’s*

century, on the other hand, as a consequence of the decrease of the property requirement for military service, small allotments of 5 *iugera* became enough to guarantee membership in the fifth class – as suggested by both Rathbone and De Ligt.⁸²⁵ By the beginning of the second century, colonization entered a new phase that followed the aftermath of the Second Punic War. The following table shows second century colonial foundation, their legal status (if Roman or Latin colonies), and the number of male settlers reported by the sources.

COLONY	DATE	STATUS	POPULATION (male settlers)	SOURCE	
Venusia	200	Latin	? (reinforcements)	Livy, XXXI. 49	
Narnia	199	//	1,000 (reinforcements)	Livy, XXXII. 2	
Cosa	197	//	1,000 (reinforcements)	Livy, XXXIII. 24	
Puteoli	194	Roman	300	Livy, XXXIV. 45	
Salernum	194	Roman	300		
Volturnum	194	Roman	300		
Liternum	194	Roman	300		
Buxentum	194	Roman	300		
Croton	194	Roman	300		
Tempesa	194	Roman	300		
Sipontum	194	Roman	300		
Copia	193	Latin	3,300		Livy, XXXIV. 53
Valentia	192	Latin	4,000		Livy, XXXV. 40
Placentia	190	//	3,000 (reinforcements)	Livy, XXXVII. 46	
Cremona	190	//	3,000 (reinforcements)		
Bononia	189	Latin	3,000	Livy, XXXVII. 57	
Sipontum	186	//	? (refounded)	Livy, XXXIX. 23	
Buxentum	186	//	? (refounded)		
Potentia	184	Roman	2,000	Livy, XXXIX. 44	
Pisarum	184	Roman	2,000		
Mutina	183	Roman	2,000	Livy, XXXIX. 55	
Parma	183	Roman	2,000		
Saturnia	183	Roman	2,000		
Graviscae	180	Roman	2,000	Livy, XL. 29	
Aquileia	181	Latin	3,000	Livy, XL. 34	
Luna	177	Roman	2,000	Livy, XLI. 13	
Aquileia	169	//	1,500 (reinforcements)	Livy, XLIII. 17	

Italian War, 300, n.16.4 comments that, while allotments of 2-4 *iugera* in colonies were considered normal, settlers relied mainly on access to the *ager publicus* to sustain their families.

⁸²⁵ See p. 173 of this dissertation.

According to Salmon, colonial foundations during this period were also stimulated by military necessity, especially fear of attacks from the Hellenistic East, and renewed campaigns against the Gauls in Northern Italy.⁸²⁶ In his view, social-economic factors, such as providing new land to the urban (and we might add rural) poor or as a reward to soldiers at the end of their service, were secondary. In some ways, however, the intention behind the settlements (which cannot be established) is in itself a secondary issue since it is how the settlements functioned that matters. Colonies perhaps founded as military settlements also fulfilled economic and social roles.

Some, such as the eight citizen colonies founded in 194 seem to have been intended as coastal outposts to protect Italian coasts from attacks from Macedonia and Syria, but they soon lost this function.⁸²⁷ Colonies such as Saturnia (183) or Graviscae (181) in Etruria hardly had any military function while even the colonies of Northern Italy, which may have had military purposes at first, were significant resettlements of population (possibly Roman, Latin and Italian) with consequent economic and social consequences.

The first wave of colonization during the 190s and the eight new citizen colonies established in 194 and the first new Latin colony of the following year were still in the shadow of the Punic War. It seems possible that the wave of colonization was intended to boost the population and provide land for the formation of new families, a process that contributed to the recovery of the Roman population after the war. From 194 onwards, the Romans founded or reinforced colonies on a regular basis until 169, clearly showing that the availability of manpower for land settlements was not a problem.

From the previous table we can see that colonization moved at least 27,200 male settlers – although some population totals are missing – between 200 and 169. Salmon and Broadhead agree that the programme ended once the military and strategic need for the colonies was met: ‘With Italy south of the Alps now firmly under Roman control, there was no longer a need for the *propugnacula imperii* that had played so important a role in Roman expansion of the previous century and a half’.⁸²⁸ However, it is possible that colonization continued after the 170s, as suggested by Tweedie, and we cannot detect such settlements

⁸²⁶ Livy, XXXI. 3 and 7 on the fear of a Macedonian invasion of Italy; Salmon, *Roman Colonization*, 95

⁸²⁷ Sipontum and Buxentum were even abandoned by their own citizens before they were re-founded in 186, see Livy, XXXIX. 23

⁸²⁸ Will Broadhead, ‘Colonization, Land Distribution and Veteran Settlement’, in ed. Erdkamp, P., *A Companion to the Roman Army*, 157; Salmon, *Roman Colonization*, 112

due to the absence of Livy's chronicle for these years.⁸²⁹ However, because of the silence between 171/167 (the last mention of colonial initiative by Livy and the end of his chronicle) and 125 (when Velleius mentions new colonial foundations), we cannot say if colonization continued or stopped. Maybe it continued in a limited form or in alternative ways, or outside of Italy more connected with the army – as we will see –, or maybe colonization actually stopped as there was no need for new state sponsored settlements (although less than fifty years later the need would return).

If we make allowance for the missing population figures and add women, children and older people (though colonies may have had an abnormally high proportion of adult males in the founding population), we might suggest that the colonization program that followed the Second Punic War moved more than 100,000 Romans, Latins and Italians in less than thirty years. We might also imagine that additional mechanisms were additionally employed to provide people with land, like the distribution of land in the form of *viritate* settlements. These were individual settlers who received plots of land in particular territory without the foundation of a town or any other organised community.⁸³⁰ Broadhead suggests that the option of *viritate* settlements was taken when the land involved was secure.⁸³¹ An example of this process is the land distribution of 173 in Northern Italy that followed its capture from the Ligurians and Gauls; here individual Roman settlers received ten *iugera*, while the Latins received only three *iugera* each.⁸³² In these instances we might assume that the land distributions had no military purpose.

Some of the Latin colonies, for instance Copia and Valentia (193 and 192), were relative failures.⁸³³ It is possible that their purpose was to increase Roman and Latin presence in Bruttium – the region that resisted the most during the Second Punic War – and Lucania; both cities offered good land allotments (15 *iugera* at Valentia, 20 *iugera* for infantrymen and 40 for cavalrymen at Copia⁸³⁴), but even these larger allotments failed in persuading Roman settlers.⁸³⁵ The same situation occurred when the senate authorized the foundation of two new Latin colonies in Northern Italy, but only one – Bononia – was

⁸²⁹ See Tweedie, 'Missing Veterans', 465-466

⁸³⁰ Broadhead, 'Colonization, Land Distribution and Veteran Settlement', 154

⁸³¹ Broadhead, 'Colonization, Land Distribution and Veteran Settlement', 154

⁸³² Livy, XLII. 4

⁸³³ Livy, XXXIV. 53

⁸³⁴ Livy, XXXV. 9

⁸³⁵ Livy, XXXV. 9: "Three thousand infantrymen and 300 cavalrymen went there, a small number in view of the quantity of land available. Infantrymen could have been awarded thirty *iugera* per head, and cavalrymen sixty, but on the proposal of Apustius a third of the land was set aside to be used to enlist new colonists is that was wanted."

actually established.⁸³⁶ In this case the land allotments offered by the state were even larger, 50 *iugera* per settler, clearly a way to attract potential recruits for the foundation, but even this was not enough to convince Roman citizens to settle there. By contrast, when two new Roman colonies, Parma and Mutina, were established in 183, there is no suggestion in Livy of any trouble in finding settlers even though the land allotments were far smaller (8 *iugera* at Parma, 5 at Mutina).⁸³⁷ The same problem occurred when Aquileia was founded in 181: settlers received large allotments of 50 *iugera* (for infantrymen, centurions received 100 *iugera*, while cavalrymen 140).⁸³⁸ There appears to have been a relationship between the success of the colony and the legal status its citizens would enjoy, as Roman citizenship appears to have become more valued.

After around fifty years of silence, we have reports of new colonial settlements: Fabrateria Nova (125) on the site of Fregellae, Aquae Sextiae (124) in Narbonensis, the Gracchan colonies of Neptunia (Tarentum) and Minervium (Scolacium) (both in 122), Narbo Martius (114) again in Narbonensis, Dertona (109) and Eporedia (100).⁸³⁹

After the foundation of Eporedia colonization entered into a new phase characterized by the predominance of colonies solely intended to settle demobilized soldiers, called *coloniae militares* by Velleius.⁸⁴⁰ Yet colonization and military service had been connected before the first century and Velleius' *coloniae militares*. About a century earlier, Scipio had discharged veterans of the Spanish and African campaigns (probably between 45,000 and 50,000 men) with 2 *iugera* in Samnium or Apulia for each year of service.⁸⁴¹ It seems that Scipio's plans of distribution for his veterans met no objections –

⁸³⁶ Livy, XXXVII. 47 on the decision of founding two new colonies in Cisalpine, while Livy, XXXVII. 57 reports that only Bononia was actually established.

⁸³⁷ Livy, XXXIX. 55 on the foundation of Parma and Mutina.

⁸³⁸ Livy, XL. 34 on the foundation of Aquileia and size of land allotments, although Livy, XXXIX. 55 shows that there were discussions about the establishment of this colony (and about its legal status) since 183.

⁸³⁹ On this new colonization wave see Velleius, I. 15. 3-5

⁸⁴⁰ Velleius, I. 15. 5; also see Broadhead, 'Colonization, Land Distribution and Veteran Settlement', 158; Salmon, *Roman Colonization*, 128

⁸⁴¹ See Livy, XXXI. 4 and XXXI. 49 on the assignation of land to Scipio's veterans. When Scipio received command of the operation in Spain (210), his army counted around 34,100 men between Romans and *socii* – see Livy, XXVI. 17 –, and part of them (maybe around 10,000 men) were the rest of the legions under the command of Scipio's father and uncle. The African legions counted between 26,000 and 30,000 men between Romans and allies (see Livy, XXIX. 25). So, these soldiers served under Scipio for a period of nine years (from 210 to 202), meaning that the most experienced ones received 18 *iugera* of land, while those with less years of service, mainly the recruits for the African campaign, had only three years of service (from 204 to 202) for a total of 6 *iugera*.

contrary to what will happen later with Marius.⁸⁴² It may be that there were other *viritim* settlements for some of the soldiers discharged in the period between these two cases, but it was clearly not a standard reward for service.

Some colonial settlements appear to have had a veteran element: colonies in which the settlers were divided into a military hierarchy – *pedites*, *centuriones* and *equites* – were established at Copia (3,000 infantrymen and 300 cavalrymen), Bononia (3,000 colonists divided by Livy once again between infantrymen and cavalrymen), and Aquileia (3,000 colonists, divided between infantrymen, centurions and cavalrymen). Although these uneven distributions may have related to the prior social status of the colonists, military rank, certainly at Aquileia, is an equally or more plausible explanation for the different allotments. It is possible that the colonists of Bononia, for example, were veterans of the campaign against the Boii. The colonies of Copia and Valentia, on the other hand, were probably focused on increasing the Roman/Latin control over Bruttium in the aftermath of the Punic War, but, at the same time, they allowed the settlement of thousands of veterans of the Macedonian War.

The connection between military service and land distribution is clear in the cases of colonization in the provinces. Italica, for instance, was founded for Scipio's soldiers during the operations in Further Spain.⁸⁴³ Corduba was an important town in Farther Spain, and, although the doubts on its establishment, its population, according to Strabo, was formed by: "picked men of the Romans and of the native Iberians" suggesting that it was originally established for Roman soldiers and Spanish auxiliaries.⁸⁴⁴ Valentia, founded in 138, was probably manned by the veterans of the campaigns against Viriathus, and Aquae Sextiae was established by consul Sextius Calvinus and proconsul Fulvius Flaccus after the successful campaigns of 124 in Southern Gaul.⁸⁴⁵ We might suggest that land distributions to veterans in the provinces involved other areas where Roman legions were involved during the second century: Greece and Macedonia after the Third Macedonian War and the Achaean War, and Africa after the Third Punic

⁸⁴² Cicero, *Balb.* 48, while commenting Saturninus' agrarian laws, does not mention any colonial foundation. Pliny, *NH*, III. VI. 80, on the other hand, suggests that Mariana, in Corsica, was the only colony established by Marian veterans. Also Livy, *Per.*, 69 briefly mentions Saturninus' agrarian laws. Broadhead, 'Colonization, Land Distribution and Veteran Settlement', 159; Michael Crawford, *The Roman Republic* (London, 1992), 126-127 argues that Marius betrayed Saturninus only after he obtained from the senate the promise that his soldiers would receive land.

⁸⁴³ Italica is mentioned in 206 by Appian, VI. 7. 38; other colonies founded in Spain – probably to settle veterans – were Gracchuris (179), Carteia (171), Palma and Pollentia on Majorca (122).

⁸⁴⁴ Strabo, III. 2. 1; on the doubts on the establishment of Corduba, see Tweedie, 'Missing Veterans', 470

⁸⁴⁵ On Valentia, see Dyson, *Roman Frontier*, 118; on the foundation of Aquae Sextiae see Livy, *Per.*, 61; Strabo, IV. 1. 5; Pliny, *NH*, XXXI. 2. 4 and Velleius, I. 15. 4

War. These campaigns involved considerable number of legions, and after their discharge at the end of the wars, although there is no mention of land grants in the sources during these periods, it is possible that alternative solutions were applied. One is that veterans received land in the form of viritane grants. Tweedie also suggests that the veterans of the Third Macedonian War, in addition to the donatives were also rewarded with land donations.⁸⁴⁶ Finally, the *lex Agraria* of 111 mentions of the reorganization of the land of Corinth (1.96) and in Africa – under the *lex Livia* (1.81) –, and it is possible that the veterans of the campaigns of the mid 140s were rewarded with land on these newly won territories.

Naturally, veterans were not settled exclusively in the provinces; as suggested by Tweedie, the discharge of veterans and subsequent land donations surely involved Italy as well.⁸⁴⁷ Furthermore, they were not involved solely in the establishment of new foundations: when discharged, veterans were probably involved in the supplement of existing colonies. The provision of land for colonial settlement was a consequence of imperial expansion and it seems likely that soldiers and veterans would, like the rest of the Roman population, benefit from land distributions. It seems very possible that the poorer elements of Roman society would have been more attracted by the prospect of new land in a distant corner of Italy or in the provinces. It may be that those at the lower end of the socio-economic spectrum, for whom service in the army was economically beneficial, would also be first in line for the colonial distributions. In some cases, however, it seems as if the connection between the soldiers and colonization or viritane distribution were more intimate. Land, then, should be seen alongside the *stipendium*, donatives, booty, as one of the potential benefits of military service.

In this chapter we have carefully analyzed the connection between the army and the economy of the Roman Republic during the key period of the second century. We have started from the historiographical debate around the Italian economy during this period, argued the origin, development and role of the *villae* and, ultimately, suggested a closer connection between them and the army. We then moved to the different approaches to the demography of the countryside. Next we have analyzed the role of the army, the different strategies adopted by Roman citizens to counterbalance the absence of family members due

⁸⁴⁶ See Tweedie, 'Missing Veterans', 471 regarding the case of the veterans of the Third Macedonian War. She also mentions that the fact that Paullus retired to Velia (Lucania) suggests that he settled his veterans in this area (see Plutarch, *Aemilius Paullus*, 39).

⁸⁴⁷ Tweedie, 'Missing Veterans', 467 she mentions the possibility of more veteran settlement in the ager Gallicus by the end of the 170s: "...given the large quantity of rich land available and the modest size of the allotments." contra Toynbee, *Hannibal's Legacy* vol. II, 204

to military service, how the army had a direct and also indirect impact in the economy, and finally, the role of colonization.

After having re-examined how the army fitted into the economy of the Roman state, and how its direct and indirect affected the population, we might suggest a different approach toward its role during the second century. We should look at military service not only as a problem, but as a solution as well. The numerous campaigns of the second century forced male citizens to leave their homes and activities, apparently leaving their families exposed to economic difficulties. As we have showed, however, there was much more to it: while service in the legions provided employment, those left at home were not abandoned to their doom, as we have saw. Especially, the army was a potential source of wealth, or, at least, sustainment that helped, rather than damaged, the Roman peasantry class during this crucial period. The progressive reduction of the census requirement for military service in the course of the second century made the advantages offered by the army much stronger. Finally, it was the army that strongly increased the monetization of the Roman and Italian economy due to the massive movement of capital that it triggered from its most basic necessity: the pay of the soldiers.

We should not look at the army simply as a cost for Rome, almost as a parasite, because it was actually one of the main source of income and employment for the Roman Republic during its expansion. It was, truly, an essential part of the complex mechanism that was the Roman economy.

CONCLUSIONS

The main purpose of this dissertation was to offer a detailed analysis of the impact of the Roman army on the economy of Italy during the expansion of the Republic with particular attention to the period between the Second Punic War and the end of the second century. In order to do so, we have focused our discussion on three main topics: military payment, recruitment and economic effects of military service. The study of the *stipendium* allowed us to understand how much Roman soldiers were paid by the state, and how military pay evolved during the Republic. By methodically examining the recruitment system, we were able to have a better grasp of its scale in terms of number of Roman citizens who served in the legions; by comparing these numbers with those suggested in the census figures by our sources, we are able to suggest plausible recruitment rates. The combination of all these data, together with our discussion of the economy of the second century – both the traditional approach, and the newer one – are the key to suggest an alternative and more complete analysis on the impact of the army on the economy of the Roman Republic during the key period of the second century.

The study of the *stipendium*, the economic impact of the Second Punic War and the relationship between military service and the economy suggest a new and more positive role of the army. It is indisputable that the army was a cost for Rome, a cost that became progressively larger because of the increase of the number of legions in service that reached its peak during the Second Punic War. As we have seen, this war proved to be extremely expensive for Rome not only in terms of human lives, but also financially: between 218 and 200 the Roman state spent more than one billion *asses* in *stipendia*. After the war the number of legions in service decreased, and, as we have saw, the second century offered very wide-ranging levels of recruitment rates from generally low to very high – although the levels of the Hannibalic War would not be reached until the Social War.

However, we have argued that the army was also a very important source of income and employment for the Romano-Italian population, and an essential part of the economy. The necessity of giving monetary compensation for military service is one of the main factors that developed Roman coinage, and allowed its spread, and finally, the monetarization of the whole Roman economy. As we have showed, Rome

spent more than one billion *asses* in the Second Punic War just for paying the *stipendia* of the legions, but this was money was not wasted, as it entered in the economic circuit. This cash was given to Roman (and Italian) soldiers who, after their period of service, were able to reinvest it (in land, slaves, farming equipment, etc), thus completing this circle. At the same time, the massive monetary requirements of the Second Punic War are probably the event that definitely triggered Roman coinage production and circulation.

At the same time, we have looked at the crucial role of the army as a source of employment, not only directly (those who served in the legions), but also indirectly with the civilian production of supplies for the army. Erdkamp already suggested the importance of food production for the army; the next step suggested in this dissertation is the development of a military industry that produced the military and non-military equipment that the soldiers needed. This started during the Second Punic War because of the vast increase of legions in service and, simultaneously, the reduction of the census requirement for service in the army allowed the recruitment of poorer citizens who couldn't afford the full military kit. For this reason, military and non-military equipment had to be mass produced by the state – a process that began the standardization of Roman military equipment. This offered employment for the urban masses, and also allowed the movement of vast quantities of goods and capital.

I believe that we have offered an alternative view on the impact of the army during the second century that challenges the traditional negative role. Our detailed analysis of the military participation rates, allowed us to have a better understanding of the scale of military service; combining the recruitment rates with the discussion on the economy of the second century, and the result is a different outlook on the supposed burden of military service. Of course, the military participation rates and the economic survey cannot ignore the debate on the census figures, and the dualism between the “high” and “low” counters. A solution to this problem that we have suggested is to look at the “middle count” theory developed by Saskia Hin, and combine it with the importance of regionalism suggested by Witcher. In this way, rather than having the Italian countryside emptied of its peasantry, or crowded by masses of poor peasants, we are suggesting to look at Roman Italy as a mosaic of regional demographic and economic differences.

This mosaic, however, was strongly influenced by a progressively important factor during the second century: the attractiveness of military service. This plays a problematic yet essential role in the understanding and reading of the census figures, thus of the whole demographic structure of Roman Italy.

We have examined in details cases of soldiers that joined (or re-joined) the legions when it was more convenient for them, and also the exact opposite. During the campaigns in the Hellenistic East or the Third Punic War, Roman citizens were more than eager to join the legions, as they were well aware of the potential economic benefits – later proved by the sources. The exact, but opposite pattern can be applied on the case of unpopular war; as suggested by Rich, the main reason why the census figures show a decline during the 140s and 130s is mainly because of the unwillingness of Roman citizen to be enlisted for the Spanish wars rather than a sudden demographic crisis.

The fluctuations of the census figures caused by the appeal of military service are also well represented by our corrected census figures: if by 147, during the peak of the operations in Africa, Greece and Macedonia – hence the high number of soldiers in service –, we have suggested a total of 393,000 male citizens, we can see that this figure drops to 340,823 in 131 soon after the end of the Celtiberian War. It seems clear that such figures are strongly influenced by the army: the fall between 147 and 131 can be explained by a strong increase – as suggested by Lo Cascio – of the unregistration in the census figures in order to avoid being enlisted for the campaigns in Spain. The fact that by 125 the number of registered citizens increased to 433,236 also points to a strong return of previously unregistered citizens, other than a general growth of the population – within the limits suggested by the middle count.

Our analysis of the economic impact of the Hannibalic War highlighted the possibility of strong economic benefits and even growth on certain levels. Among these positive effects there is the intensification of agricultural productivity due to increasing military demands, and we have suggested that this factor triggered the development of the *villae*. After all, as we have showed, surveys clearly show that *villae* were not archaeologically prominent before the third century, and started to really expand by the end of the second century and beginning of the first century. By rethinking the origins, the development, and even the role of the villas we have questioned the spread and impact of slavery during the second century. Jongman' studies on Italian productivity emphasized the fact that Hopkins strongly overestimated the impact of rural slavery, especially in terms of its number, an argument followed by both Rosenstein and De Ligt. Therefore, we have suggested that slave ownership was quite common among the Roman peasantry (even small farmers), and that it was part of the strategies used by families to counterbalance the absence of their men due to military service. By combining all these elements, it becomes difficult to believe in the established notion of large villas whose fields were worked by large numbers of slaves before the late second century, and especially the first century.

Finally, by combining all these elements – the role of the army in terms of recruitment rates and direct/indirect involvement, the demographic and economic development of the Roman countryside – we were able to better understand the impact of military service and outline a completely different scenario in which the army played a positive and important role in the sustainment of the Roman peasants.

We have highlighted different strategies that Roman families may have adopted to counterbalance the absence of their members in service with the legions. There is no doubt that the army was an essential part of the Roman economy – as a cost, but also as one of the main sources of income – on a macro-economic level, but it played a fundamental part on a micro-economic stage as well. We believe that the case of Spurius Ligustinus is an indication that already by the second half of the second century – if not before – the transformation of the army into a force of volunteers was altering the relationship between military service and the population. The reduction of the census requirement opened the legions to multitudes of poorer citizens, for whom the benefits offered by the army represented a strong motivation to enlist. The most basic was the *stipendium*; as we have argued, 3 *asses* per day (so 1,080 *asses* per year) was not a large sum of money per se, but it was not negligible for a substantial part of the soldiery. The episode of Ligustinus also shows that soldiers were able to alternate short campaigns with periods of civilian life, probably to counterbalance periods of agricultural inactivity, unemployment or simply to offer additional income to their families.

As we said, after all, the *stipendium* was only the first and most basic of the benefits that the army offered to the citizens. We have discussed the role of booty and donatives, and, of course, the possibility of receiving land as part of a state or army sponsored colonial foundation.

Furthermore, we should combine these factors with marriage practices. Saller and de Ligt proposed that Roman men usually married after their period of military service. This implies that a significant proportion of recruits were younger or unmarried; second, by marrying after their service in the army, it seems that citizens were well aware of the benefits offered by the army, and tried to make the most of them before marrying. The return of married soldiers seems to highlight the role of alternative occupation/source of income.

The study of the Roman army has recently become object to new enquiries and reconsiderations, especially in terms of its impact. Works by historians like Lo Cascio, Erdkamp, de Ligt or Rosenstein have started to offer different paths to our understanding and interpretation on the role of the army of the Roman Republic. I believe that this dissertation offers a contribution to these theories, and it provides further alternative interpretations on the impact of military service.

We have presented a complete and updated survey of the likely number of legions in service year after year from 218 to 125, so that it is possible to better comprehend the scale of military service, and its impact when comparing the recruitment rates with the census figures. From this we can say that the burden of military service for the population has been exaggerated. The Second Punic War, being a struggle for survival, was clearly an exception; between 200 and 125, the military effort grew closer to the levels of the Hannibalic War only in the period between 149 and 146. The rest of the second century, including the years of the Spanish campaigns, did not present unbearable recruitment rates.

We were also able to offer estimates of the costs of the army for the Republic on different occasions. We have already looked at the example of the overall economic cost of the Second Punic War, but we have also offered cases during the second century presenting yearly costs during period of intense military activity (between 149 and 146) or moderate military activity (between 130 and 125).

Finally, in order to fully understand the effect of the army on both the overall economy and especially on individual citizens, we have highlighted the direct and indirect contributions to the economy by the army. Citizens directly involved in the army were able to receive benefits such as regular payment, donatives, booty and land. Naturally, certain campaigns were more profitable than others, but on some occasions soldiers were actually able to gather considerable wealth. Indirect contributions are much less considered in the historiography of the impact of the army, although they are of crucial importance in the economic strategies. From the Second Punic War the state became more involved in the production of military and non-military equipment offering employment and income.

The main purpose of this project is to furtherly develop an alternative view on the Roman army and its connections with the economy during the Republic, and particularly during the second century, by suggesting a more positive impact of military service contrary to the generally accepted negative one. The state, while sustaining the costs of paying the army, benefitted from the income and land expansion

generated by military campaigns. Service in the legions transformed from a duty/burden to an alternative source of employment for citizens who, at the same time, directly and indirectly benefitted from military service, and the business of supply the legions (from the production of food, military and non-military equipment to the transport and distribution). The Romano-Italian population, also supported by military-related income, was thus able to invest its resources by buying land, goods (farming equipment, etc) or slaves. All of this caused the circulation of a massive quantity of cash in the economy. Furthermore, citizens were involved by both the state and the army in colonial foundations, of which we have highlighted the economic and demographic importance.

On a final note, we should add that peninsular Italy was generally at peace during the second century, and that Roman wars were conducted in the provinces or outside the borders of the Republic. Between the end of the Second Punic War (201, but we might suggest by the time Hannibal left Bruttium, so 203) and the beginning of the Social War (91), Central and Southern Italy, the core of Roman territory, enjoyed a long period of peace that surely contributed to the demographic recovery and economic growth of the second century.

In conclusion, it is undeniable that military service presented risks for Roman citizens and their Italian allies: they could get killed or injured, and long periods of absence might cause economic ruin to families. However, among the economic strategies adopted by the Romano-Italian families we have added military service as well because it is also undeniable that service in the army offered economic benefits that became progressively more important with the reduction of the property requirement for military service. At the same time, it is our belief that the absence of men has been overrated in terms of economic impact, as it completely ignores the role of women, extended family members or alternative sources of labour.

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