

Chapter 7. Rome: The Principate Cycle (30 BCE – 285 CE)

7.1 Overview of the cycle

The Principate cycle covers the three centuries between 27 BCE and 285 CE (from the establishment of the Augustan Principate to the accession of Diocletian). Because the bulk of territorial expansion was accomplished by the end of Augustus’ reign, fluctuations in territorial size thereafter were relatively minor and had minor effects on the social, economic, and demographic variables.

The expansion phase was the century under the Julio-Claudian and Flavian emperors. This was a period of population growth and economic expansion, somewhat marred by political instability at the very top, which however affected mostly the ruling class. Although six out of ten successors of Augustus (Caligula, Nero, Galba, Otho, Vitellius, and Domitian) were overthrown and met a violent end, this was accomplished by means of a palace coup, rather than a full-blown civil war. The most serious period of political instability was the one following Nero’s death, and lasted less than two years (from March 68 to December 69).

The stagflation phase began with the accession of Nerva (96) and ended with the arrival of the Antonine plague (165). This was a period of high political stability, when the empire was governed by the five “good” emperors (Nerva, Trajan, Hadrian, Antonius Pius, and Marcus Aurelius). As is usual during the stagflation phase, the elites did very well and their numbers grew. Thus, this period is usually considered as the Golden Age of the Roman Empire. There was, however, increasing popular misery due to overpopulation and inflation (again, as is typical of stagflation phases). The peak of state power, territorial extent, and economic prosperity (at least for the elites) was achieved during this phase. A number of social and economic indicators, such as the number of inscriptions and documents, building activity, and marble and brick production, peaked towards the end, c.130–150 (Greenberg 2003).

The crisis phase started with the first appearance of the Antonine plague (165). The consensus among the elites unraveled, and by the end of the period, when Commodus was overthrown, the situation developed into full-blown civil war (192–7). The period from 211 (when Septimus Severus was succeeded by Caracalla) to 285 is best thought of as the depression phase, characterized by incessant intraelite conflict, chronic civil war, and further population decline (resulting from recurring epidemics of the 250s and 260s, among other causes). As usual, there were relatively peaceful interludes resulting from sheer exhaustion of the warring parties. The disintegrative trend reversed itself when Diocletian defeated his rivals and established the Dominate.

Population Dynamics

We are very fortunate to have three Augustan and one Claudian censuses of the Roman citizen population. They are as follows (Brunt 1971:113 and the 1987 postscript):

Table 7.1 Early Imperial population censuses.

year	pop, mln	implied growth rate
28 BCE	4.063	–
8 BCE	4.233	0.2% p.a.
14 CE	4.937	0.7% p.a.
48 CE	5.894	0.5% p.a.

These numbers exclude the slaves, but include an unknown proportion of Roman citizens residing outside Italy. They suggest that the decline tendency characterizing Italian population during the first century BCE was reversed in c.30 BCE, and that the population began growing at an accelerating rate (0.2% per year at the end of first century BCE against 0.5–0.7% during the second). Brunt estimates that, given census undercounting and adding slaves, there were perhaps 7 million people total in Italy at the end of the Augustan period (14 CE), which would imply that the population in 28 BCE was somewhat below 6 million. We should note that Brunt believed that the increase in census numbers between 28 BCE and 14 CE is entirely due to enfranchisements of slaves and provincials, but we find his arguments unconvincing. The proportion of Roman citizens residing outside Italy did not become significant until the second half of the first century CE, so a substantial part of the increase in census numbers must be due to population growth in Italy. This only makes sense, since the establishment of the Principate marked the end of the destructive civil wars and the beginning of a long period of *Pax Romana*.

We do not have census data after 48 CE, but it is probable that population growth continued in Italy throughout the first century and then stagnated, or perhaps increased very slowly during the second (until the plagues). In general, it is thought that the greatest population growth occurred in the provinces of the Latin West other than Italy. Thus, Frier (2000), endorsing a previous estimate by McEvedy and Jones (1978), suggested that the total population of the Latin West increased from 25 to 42 million between 14 and 164 CE. This growth corresponds to a 40% increase in proportional terms. Thus, over the whole period, from 29 BCE to 164 CE, the population increase of the Latin West must have been at least 50%, and most likely more, because MacEvedy and Jones tend to underestimate the degree of population fluctuations (as we saw, for example, in the English chapter). The initially more populous East increased less, from 20 to 23 million. At the peak, the total population of the Roman empire is variously estimated as 60 million by Frier and close to 100 million by Beloch. The truth probably lies somewhere in between (Scheidel 2001:64).

One piece of evidence that suggests that Italian population stagnated, or even slightly declined during the second century is the institution of *alimenta*, public assistance for freeborn children instituted under Trajan (or, perhaps, Nerva) (Ward et al. 2003:337). This program was prompted by the perceived population decline of the impoverished small farmers, especially in central Italy, resulting in a reduction of the numbers of Italian recruits to the legions. However, diminishing numbers of “middle classes” do not necessarily imply that overall population was declining. Growing economic inequality, which is characteristic of stagflation phases, could reduce the numbers of smallholders at the same time that some small fraction of them moves up into the elites, while the great majority slides down into poverty (see, for example, the previous chapter for a discussion of similar pressures during the second century BCE in Italy).

Archaeological data also support population increase in Roman Empire during the first two centuries CE, but at the same time highlight geographic variation in population dynamics. A very useful contribution to this question is the survey of archaeological evidence by Lewit (1991). Lewit focused on a sample of 201 excavated farm and rural settlement sites in seven regions of the western Roman Empire. Dividing the overall time period into eight segments (100–0 BCE, 0–100, 100–200, 200–250, 250–300, 300–350, 350–400, and >400), she then determined the proportion of excavated sites occupied during each time segment (Figure 7.1).

Figure 7.1 Occupation of rural site in the western Roman Empire. In each panel, the first location is indicated with the solid line, the second with the broken line. The data indicate two secular cycles, those of the Principate and the Dominate.

We can see that in Italy the occupation index curve begins at an already high level during the first century BCE, reaches the peak in the first century CE, and then actually declines during the second century. By contrast, the provinces tend to reach the maximum during the second century (Figure 7.1). Minor exceptions are South Gaul, where the occupancy index is the same in both the first and second centuries, and South Spain, where the peak is achieved during the first half of the third century.

The second half of the third century was characterized by site abandonment in all seven regions. However, the degree of abandonment varied, and was correlated with the severity of civil war/barbarian invasions (Lewit 1991). The contrast is most vivid between Britain, which escaped barbarian invasions in the third century, and Gallia Belgica, which was completely overrun by the Franks (see Figure 7.1b).

Averaging regional curves, we see that the overall occupation index of the Latin West (assuming that North Africa followed suit) increased greatly during the first century CE followed by a more gentle growth in the second century (Figure 7.1a, solid curve). After the peak of the second century, occupation index began decreasing during the first half and hit the minimum in the second half of the third century. There was a recovery in the fourth century (during the next cycle of the Dominate) and the final collapse in the fifth when the western Roman Empire was overrun by the Germanic invaders. Regional surveys support this picture. Thus, the Albegna Valley (Etruria) survey found 23 farms, villas, and villages in the first century. The number declined to 14 in the second and 8 in the third centuries. It then increased to 11 in the fourth and again declined to 6 in the fifth centuries (data by Cambi and Fentress, cited from Bintliff and Sbonias 1999:5). This is the same pattern that Lewit found for Italy. Thus, it appears probable that the peak of rural Italian population was achieved rather early, in the first century, while population in the rest of the empire continued to grow up to mid-second century.

Still, we cannot connect the occupation index directly to population numbers because site abandonment does not mean that all people inhabiting the abandoned sites died. In reality, we know that during the stagflation and crisis phases a substantial proportion of rural population migrates to cities. On the other hand, the occupation index of *rural* sites (which is what Lewit focused on) is more directly related to another quantity of interest, the carrying capacity, defined as the number of annual food rations that are produced within the territory controlled by the state. It can be estimated by multiplying the cultivated area by average productivity of unit of land (for an example of the calculation, see the Appendix of Chapter 3). Between the second century peak and the late third century trough the number of occupied rural sites in the Latin West decreased by 32% (Figure 7.1a). Although theoretically it is possible that some of the land belonging to the abandoned farms was cultivated by peasants coming from elsewhere, in practice this does not happen during the times of trouble because of security concerns. In fact, the cultivated area around the sites that stay occupied tends to shrink as inhabitants abandon fields that are too far from the shelter provided by the walls or other fortifications (see Chapter 5). Furthermore, during the periods of high sociopolitical instability people tend to move to settlements that have natural defensive features, such as hill tops, with the consequence that it is the best agricultural land in the lowlands that falls out of cultivation. In sum, it is likely that the carrying capacity during the third century actually declined by at least a third from the peak. Once the carrying capacity declined, population followed, but with a lag. Most peasants abandoning rural settlements may have moved to cities, including Rome. Under high mortality/low fertility conditions of pre-industrial cities, the populations of migrants gradually decreased until the overall population numbers approached the sustainable levels determined by the reduced carrying capacity. This argument suggests that the relationship between the occupation index and population density was indirect and dynamic. Once the disintegrative secular trend sets in it is the carrying capacity that

declines first, and population numbers that follow with a lag time. It should take at least a generation, or even longer, for the system to come in some sort of equilibrium (and it may actually not do so before the decentralization tendency is reversed and carrying capacity begins increasing).

Certain economic trends during the Empire can also be traced using archaeological data. For example, the rate of importation of African Red Slip Ware into the Albegna Valley (Etruria) exhibits an increase during the second century and reaches the peak during the 180s and 190s (Figure 7.2). After the third century collapse, there is a second peak during the last quarter of the fourth century, reflecting the secular cycle of the Dominate.

Figure 7.2 Importation of African Red Slip Ware into the Albegna Valley (Etruria)

Social Structure and Elites

The social structure of the Roman Empire is sketched in Table 7.2.

Table 7.2 Social structure of the Roman Empire during the first century. The numbers and minimum wealth for senators, equestrians, and decurions are based on (Jongman 1988:193), others on (Alston 1998:217).

Wealth = total worth of property; Income = annual income. * = estimate using 6% of wealth (Jongman 1988:195). All numbers in 1000 of sesterces.

<i>Stratum</i>	<i>Wealth</i>	<i>Income</i>	<i>Numbers</i>	<i>Notes</i>
Greatest fortunes	400,000	24,000*	2	Lentulus, Narcissus
Senator	1,000	60*	600	Minimum wealth qualifying for senatorial status. A more realistic minimum is HS 8 mln (Wells 1992: 187)
Equestrian	400	24*	5,000	Minimum wealth qualifying for equestrian status.
Decurion	100	6*	20,000	
Legionary	12 ¹	1.2 ²	180,000 ³	¹ Retirement bonus; ² annual pay; ³ Harl 1996
“Decent living”	–	1		Alston’s estimate
Basic subsistence	–	0.1		Assuming 220 kg p.a. @HS3 per modius

Table 7.2 presents a static view, but the social structure of the empire evolved substantially during the Principate. One development was a formal legal distinction that arose during the second century between *honestiores* and *humiliores* resulting in the “dual penalty system” by the Severan age (Saller 2000:851). *Honestiores* included senators, equestrians, army veterans, and their families. They suffered less extreme and degrading penalties than *humiliores*, and testimony of the upper class members was recognized as more credible.

An even more important development was the increasing divergence, throughout the Principate, between the status and power hierarchies. Unlike in the Republic, the senatorial class did not monopolize the chief administrative posts in its hands. The Julio-Claudian emperors employed slaves or freedmen in a number of top administrative positions, such as heads of chancellery (Hopkins 1983). From the middle of the first century on, equestrians were increasingly employed in these positions. Eventually equestrians, most of whom had military background, became governors of all important provinces. “By the end of the third century AD,

the senate collectively and most senators individually were cut off from the exercise of political power on behalf of the state” (Hopkins 1983:183).

The state finances

Scattered indications about the Empire’s annual budgets and the state of its treasury are gathered in Table 7.3.

Table 7.3 Annual budgets of the Roman Empire.
(Frank 1940, Duncan-Jones 1994)

Period	budget, HS billion	budget, tons silver	surplus/deficit, HS billion
Augustus (27 BCE–14)	0.4–0.45	400	
Tiberius (14–37)	0.5	460	
Surplus in 37			3*
Deficit in 41			“large”
Deficit in 70			–4
Vespasian (69–79)	1.2–1.5	1,100	
Surplus in 96			“substantial”
A. Pius (c.150)	0.8–1	670	
Surplus in 161			2*–2.7
Funds in treasury in 193			0.001
Caracalla (c.215)	1.4–1.6	610	

*HS 2.7–3.3 billion (Ward et al. 2003:308, 346)

Basing his calculations on legionary pay and the number of troops in the Empire, Harl (1996:220) estimated the spiralling costs of the military during the Principate (Figure 7.3a). Total annual expenditures on administration were probably of similar magnitude to military costs, and could have increased from HS 400 mln to HS 1 billion between the reigns of Augustus and Septimus Severus (Harl 1996:227).

Figure 7.3. State expenditures during the Principate. (a) Estimated military costs (Harl 1996:220). (b) Imperial handouts (*congiaria*) (Duncan-Jones 1994:41).

Duncan-Jones (1994:11–16) identified four phases through which the imperial finances went under the Principate. Remarkably, his phases coincide almost exactly with the four phases of the cycle we have delineated at the beginning of this chapter, based of demographic and sociopolitical stability indices.

The expansion phase (27 BCE–96) was characterized by intermittent financial difficulties, which were largely resolved by the end of the first century. Difficulties in funding army discharge bonuses under Augustus and Tiberius almost led to a mutiny (Duncan-Jones 1994:11). Tiberius was criticized as being stingy, but he managed to accumulate HS 2.7 billion in the treasury by his death. Tiberius’ surplus was then spent by Gaius (Caligula), who supposedly left a deficit on his death. Treasury recovered during Claudius’ reign (41–54), which must have been helped by the funds that came from the goods of condemned senators and knights. Nero’s reign (54–68), like Caligula’s, saw huge expenditures that were offset to a certain degree by large seizures of property (condemnations, statues of precious metal, forced contributions). When Vespasian (69–79) became emperor, he had to deal with a huge deficit (HS 4 billion). The supposed profligacy of Nero, however, may have been an exaggeration by the later tradition that

tended to accuse the “bad” emperors of all kinds of sins (the same consideration should qualify the reports of the deficit left by Caligula).

Vespasian increased some taxes, renewed others that had fallen into disuse, and introduced new ones. Frank (1940:53) estimated the annual income under Vespasian as HS 1.2–1.5 billion. In other words, the revenues tripled during the first century of the Principate. As a result, Vespasian largely restored the health of the state finances, which allowed Domitian to raise the army pay. The small-scale debasement of the denarius under Nero was reversed by the Flavians.

The Empire entered the stagflation phase (96–165) with very strong finances. The reigns of Trajan (98–117) and Hadrian (117–138) were characterized by large increases in spending that were apparently easily accommodated by the revenues (Duncan-Jones 1994:13). Imperially financed building activity reached the peak under Hadrian (Duncan-Jones 1990: Figure 10), and was also very intense under Trajan and Antoninus Pius (138–161). Antoninus Pius left a large surplus to his successors (HS 2.7 billion). This was to be the last surplus reported until the fifth century (Harl 1996:94).

The imperial finances unraveled during the crisis phase (165–192). Marcus Aurelius had to sell the gold vessels and artistic treasures of the Imperial palace to finance his Danubian campaign of 169 (Ward et al. 2003:349). Commodus attempted to buy popularity by frequent and lavish cash handouts, *congiaria*. He spent around HS40 million on *congiaria* per year, double the amount that was spent under Hadrian and Antoninus Pius (Figure 7.3b). He also entertained the citizens with frequent chariot races, gladiatorial combats, and beast hunts in the arena (Ward et al. 2003:381). By itself, the spending on *congiaria* was not enough to break the treasury (it was perhaps 5% of the estimate revenues of the Empire at the time). But the alarming growth of cash handouts to citizens was at least matched by the growth of handouts to the army (although we lack time-series data on this trend, see Duncan-Jones). Army costs constituted the bulk of the Imperial budget, and their growth was what caused the state bankruptcy. Financial difficulties of Commodus are reflected in the debasement of the denarius (declined from 3 to 2 g of silver, see below), and in the alarming increase in the executions of wealthy nobles and the confiscation of their property (Ward et al. 2003:382). The next emperor, Pertinax (193) again used the expedient of selling palace treasuries to raise cash.

After a brief relatively stable period under the Severi (193–235), the finances collapsed for good during the civil wars of 235–284. Probably the best indicator of the financial difficulties of the Roman state is given by the rate at which the main silver coin, denarius, was debased by successive emperors (Figure 7.4).

Figure 7.4 The state financial difficulties illustrated by the debasement history of the denarius (Duncan-Jones 1994:Table 15.5).

The Empire minted coins primarily for the purpose of paying the army, bureaucracy, and making good on other state expenses. The Roman rulers recognized early on the value of debasement as a temporary solution of their fiscal difficulties. Thus, Nero reduced the silver content of the denarius (both by making it lighter and by increasing the percent of base metal) to 3.14 g (compared to 3.72 g under Augustus). Vespasian further reduced it to 3.07 g, but once the financial health was regained, Domitian increased the silver content of the denarius back to 3.28 g. While the state finances stayed healthy under the “good” emperors, the silver content of the denarius declined very slowly and was still just below 3 g under Antoninus Pius. However, by the end of the second century, the silver equivalent of the denarius fell precipitously to just 2 g,

mainly as a result of increasing the proportion of base metal to one-third. Figure 7.4b shows the rate at which the denarius was losing silver. The first peak occurred in the late second century, when Septimus Severus (193–211) became the emperor and was faced with the task of stabilizing the state finances. The second peak occurred during the civil wars of 235–284. By the end of the reign of Gallienus in 272, the denarius had only 2.5% silver left in it.

Sociopolitical instability

From the point of view of sociopolitical stability and public order the period of the Principate can be divided into three distinct phases (see Table 7.4 for the list of instability events affecting the political center). Political instability from Augustus to Domitian (30 BCE–96 CE) primarily affected the top elite strata, including the emperors, many of whom were deposed and murdered. In fact, the majority of Julio-Claudian emperors died violently. The senatorial stratum also suffered as a result of prosecution from reigning emperors and/or following unsuccessful plots. The nature of instability, however, was largely confined to treasonous plots and coup-d'états, with full-blown civil war flaring up only once, in 68–9.

Table 7.4 Sociopolitical instability in Italy, 30 BCE—285 CE.
(Based on Sorokin 1937 supplemented by other sources)

<i>year</i>	<i>Event</i>
–22	Revolt at Rome
15	Disturbances at Rome
24	Rebellion of the slaves in South Italy
41	Murder of Caligula; proclamation of Claudius
42	Conspiracy at Rome (Scribonianus)
59	Disturbances at Pompeii
64	Fire of Rome and disturbances
65	Conspiracy at Rome (Piso)
68	Uprising against Nero
69	Year of the three Emperors; Civil war
95	Conspiracy at Rome
96	Murder of Domitianus; Nerva
182	Conspiracy at Rome (Commodus' sister)
189	Famine Revolution at Rome
192–7	Civil war (multiple emperors): murder of Commodus; Niger, Albinus
211	Murder of Geta by Caracalla
217	Murder of Carcalla; Macrinus
218	Civil war; Macrinus assassinated
221	Mutiny of army near Rome
222	Deposition of Elagabalus
228	Disturbances in armies in Rome (and Mesopotamia)
235–8	Deposition of Alexander Severus; Civil war (multiple emperors)
244	Murder of Gordianus III
248–9	Revolts in Syria, Egypt, and at Rome; Philippus killed in battle
249–53	Civil war (multiple emperors); Gallus killed by his troops
258–68	Civil war (multiple emperors: “the Thirty Tyrants”)
269	Revolt at Bologna and other cities
270	Civil war (Quintillus-Aurelianus)
274	Revolt at Rome (monetarii)

275	Disturbances at Rome after the assassination of Aurelianus
276	Deposition of Tacitus, Florianus; Probus
282–5	Civil war (multiple emperors). Murder of Probus, Carinus; Diocletian

The next period, from Nerva to Marcus Aurelius (96–180) was remarkable in its high stability—there were no major instability events at the imperial core, Italy. The third period, starting with the reign of Commodus, introduced the period of high instability, recurrent state collapse, and endemic civil war. There were periods of multisided civil war and multiple emperors in 192–7, and then almost continuously from 235 to 285.

The evidence of coin hoards (Christiansen 1985, Robertson 2000) paints a similar picture, but with variations due to localities where hoards were buried (compare Figure 7.5 to Figures 7.6 and 7.7). The biggest peak in both provinces occurs during the second half of the third century. As to other, secondary peaks, they show more variation. In both Alexandria and Britain there is a peak during the 60s, probably associated with the civil wars of 68–9. This is followed by a trough around 100, and gradual rise under the Antonine emperors. In Alexandria the second century peak occurs earlier than in Britain, around 160. This spike is perhaps associated with the Egyptian uprising.

Figure 7.5 Roman Principate: Sociopolitical Instability Index

Figure 7.6 Time distribution of coin hoards in Alexandria, Egypt, during the Principate

Figure 7.7 Time distribution of Romano-British coin hoards.

The time distribution of coin hoards published in *Corpus de Trésors Monétaires Antiques de la France* (Société Française de Numismatique, Paris, 1982) shows the same broad pattern, with a dominant third century peak. However, hoards have been assigned by the experts to very broad temporal categories (“first century”, “second century”, or “the Julio-Claudians”, “the Antonines”) which furthermore disagree between different volumes, so in the present form these data cannot be easily summarized.

7.2 Expansion (27 BCE–96 CE)

The commoners

In the previous chapter we discussed how the economic inequality grew during the Late Republic. One important consequence of the civil wars and the first years of the Principate was a significant reversal of this trend. The basic precondition of reduced inequality was the population decline that took place during the first century BCE, creating space where landless peasants (mainly, veterans) could be settled. For example, in 36 BCE Capua gave up large tracts of deserted land for settlement of Octavian’s veterans, in return receiving lands in Crete and for the construction of a new aqueduct (Wells 1992:21–22). Not all land was obtained by purchase. After the battle of Philippi (42 BCE) Octavian simply stripped eighteen towns of their land, which was divided among the veterans. One of these towns was Cremona where perhaps 3000–4000 veterans were given 35 iugera (9 ha) each, a very substantial land allotment. But such land seizures stopped with the end of the civil wars. In 30 and 14 BCE Augustus spent HS 860 million to purchase land to settle veterans (of which 600 million were spent in Italy and 260 million in provinces). Large numbers of peasants emigrating to the provinces further decreased the population pressure on the resources within Italy. Additionally, Walter Scheidel (2007) estimates that under the early Principate as many as one in ten free Italian men left Italy for the service in the legions. Most of them never returned, because the surviving veterans were resettled in the

provinces. However, this outlet for “demographic steam” gradually became less important, as Italian military participation rates declined during the first century.

Thus, the Principate cycle began with greater numbers of relatively prosperous small land-owners, compared to the late Republic. However, it is likely that this relative prosperity was rapidly eroded during the first century as a result of population growth. There was also a large number of slaves in Italy (Brunt estimates 2 million, but Scheidel revises this estimate down). The number of slaves probably diminished during the first two centuries CE (Saller 2000:851). First, there was a substantial diminution of territorial conquests after Augustus, and thus the supply of war captives declined. It is thought that the slave population could not reproduce itself biologically, due to both manumission and lower birth rates. Second, as population growth resumed, the number of landless peasants began increasing. Thus, at the same time as the price of slaves increased due to their scarcity, the real wages that could be paid to landless peasants declined due to their abundance, and it became more profitable to lease land in return for rent, or hire workers.

The elites

At the opposite end of the social scale we have some scattered numbers indicating the wealth of the senatorial class. The richest men outside the imperial house, known to us under the early Empire, were Gnaeus Cornelius Lentulus, consul in 14 BCE, and Claudius’ freedman, Narcissus (Wells 1992:8). Each reputedly owned property worth HS 400 million. It is noteworthy that both of these incomes belong to the early phase of the Principate. Apparently, the scale of largest fortunes declined during the first century, partly as a result of persecution of the wealthiest aristocrats. Thus, Narcissus was poisoned by Agrippina, Nero’s mother, after Claudius’ death. Claudius (41–54) himself condemned to death thirty-five senators and many knights; a substantial part of their fortunes must have gone into the imperial treasury (Duncan-Jones 1994:11). Nero is said to have executed the six largest land-owners in Africa Proconsularis and thus gained possession of the rich Bragadas valley (Ward et al. 2003:322). When a number of plots against Nero proliferated, starting in 65, he forced a great number of senators and equestrians to commit suicide. These included such well-known personages as Seneca and the poet Lucan (Ward et al. 2003:322).

As a result of imperial persecution and the civil war of 68–9, the ranks of Roman senators had become depleted to about 200 (Ward et al. 2003:329–330). After the purges of Nero and Domitian most of the old Republican noble families had disappeared (Ward et al. 2003:372). Under Trajan and Hadrian only some thirty senators are known who still bore the names of the old Republican nobility (Wells 1992:171). Of the 26 families whom Augustus (27 BCE–14) and Caludius (41–54) elevated to patrician status we know of only six still surviving under Trajan (98–117) (Wells 1992:237). This is a very low rate of retaining elite status, 23% in less than a century, implying an extinction rate per 25 years of well over 30%, perhaps close to 40%. Here are some additional statistics (Hammond 1957:75): the proportion of patricians of Republican ancestry who can be identified in the Senate within any given period declines from an average of about 16% under Augustus (27 BCE–14) to 4.5% under Nero (54–68), slightly over 2% in 69, only 1% in 96, and less than 1% in 117. These numbers imply a 50% extinction rate per 25 years. Similar factors affected the descendants of emperors. For example, Junia Calvina was the only descendant of Augustus alive in the 70s (Wells 1992:67).

The elite dynamics under the early Principate, thus, resembles very much the downfall of the “overmighty subject” under the Tudors (see Chapter 3). While some large senatorial fortunes were lost to the state as a result of imperial persecution, others joined it when wealthy senators became emperors (for example, Titus Aurelius Antoninus, who became the emperor Antoninus

Pius). The end result was that during the first century the relative power of the most powerful and wealthy private individuals declined substantially with respect to the state.

Figure 7.8 Time distribution of dated buildings in Italy (solid line: private individuals; broken line: emperors (Duncan-Jones 1990:213).

Data on building dedications by private individuals support this conjecture. The curves of dedications per reign-year show an initial peak under the early Principate that declines during the first century. The low is reached under the Flavians and Hadrian, after which the curve increases and reaches the second peak under A. Pius in Italy (Figure 7.8, solid line), M. Aurelius in Sabratha, Commodus in Thugga, and even S. Severus in Lepcis Magna (the last observation is mainly explained by the fact that S. Severus was a native of Lepcis Magna). Note that funding whole buildings was possible only for the wealthiest members of the elite.

In summary, it appears that the fortunes of the top elite stratum, the magnates, under the Principate, first declined, reaching a trough during the Flavian period, then increased under the five good emperors and reached the peak during the second half of the second century. The nature of the magnate stratum, however, changed radically. Whereas the first century's aristocracy was still dominated by the senatorial order, during the second century senators lost power, and persisted largely as a status group (Hopkins 1983:171–6). The power was accumulated in the hands of provincial governors, military commanders of the legions, and the commanders of the Praetorian guard, who typically were equestrians. Thus, one important trend that continued throughout the Principate was the senate's gradual loss of status as the repository of power elites. The center of gravity shifted from the senate to the imperial bureaucracy, and more precisely, to the Imperial Council. This began as *Consilium Principis*, an informal conclave of Augustus' friends and advisors, and was converted into a more permanent structure by Hadrian (Ward et al. 2003:344). During the second century the Senate gradually lost any real influence on the imperial administration. The Imperial Council became the true successor of the old Republican Senate after the reorganization by Septimus Severus (Ward et al. 2003:385).

(De)urbanization

Finally, let us consider the urbanization rate or, more specifically, the population size of the capital. The authorities tend to agree that the population of the city of Rome doubled from the late second to the late first century BCE, and reached the vicinity of 800,000–1,000,000 (Hopkins 1978:96ff, Morley 1996:36ff). This estimate is based on the recorded numbers of the recipients of the free wheat dole and occasional cash handouts (*congiaria*), which fluctuated between 150 and 320 thousand. The estimate of 0.8–1 million is derived by starting with 200–250 thousand recipients, dividing it by the estimated proportion of males over 10 years old (those who were eligible for the dole) to obtain the total free population, and adding guessed numbers of the elite and slave strata. However, the recorded fluctuations in the numbers of dole recipients make a lot of sense in light of demographic-structural theory, and we can use them to sharpen up the dynamics of the numbers of Rome's inhabitants.

The fluctuations in the recorded numbers of corn dole recipients were as follows (Hopkins 1978:96ff, Morley 1996:36ff). Under the popularis tribune P. Clodius (the 50s BCE) they swelled to 320,000. In 46 Caesar reduced them to 150,000 by organizing emigration to the provinces and tightening registration of those who qualified. Under Augustus the numbers increased back to over 250,000 and reached another peak of 320,000 in 5 BCE. Three years later the number sank to just over 200,000 and on the death of Augustus they numbered 150,000 (at least, this was how many people benefited from his will). We see a definite pattern here: the urban population swells following the protracted periods of civil war (with a time lag), and then is

gradually reduced during the periods of internal peace (see Chapter 1 for the general discussion). This argument suggests that we can take the transmitted numbers at their face value. The peak number of 320,000, then, would imply some 1.2 million of total inhabitants, while the trough number of 150,000 corresponds to 0.6 million (there is at least 10% uncertainty associated with these estimates). We propose, therefore, that under the late Republic and during the early years of the Augustus the population of Rome swelled to 1.2 million, and by the end of his reign it declined to 600,000. Naturally, at the peaks the city was horribly overpopulated, while when the population was halved by 14 CE, the quality of life must have become much more bearable, even for the poorer citizen strata.

We do not know how population of the city of Rome changed during the first century, but it probably did not grow very much, if at all (at least, that is the general rule during the population expansion phases, when typically the proportion of urban population to the total tends to decrease). During the stagflation phase (96–165) the urban population should have increased. We know that the number of *vici* in the city increased between the reign of Hadrian (117–138) and the fourth century (Morley 1996:38). Almost certainly this happened during the second century. Equally likely is that by the end of the third century, with the start of the next cycle of the Dominate, the population of Rome declined. The third century wall marked a contraction from the regions occupied during the Augustan era (Morley 1996:38). In summary, the possible evolution of the urban population of Rome was an increase from 0.6 million in the first half of the first century to perhaps well over million in the end of the second, followed by a decline towards the end of the third.

7.3 Stagflation (96–165 CE)

Population pressure and economic change

Price and wage data are very scarce for the Roman Empire outside Egypt. The only empire-wide wages that we know about are those of legionnaires (Table 8.4).

Table 7.5 Legionnaires wages. Nominal wages from (Greene 1986:59), silver equivalent of HS from Harl, and wheat prices from Table 8.5.

Time period	Annual wage, HS	silver equivalent, g	Wheat, quintals
Augustus (27BCE–14)	900	837	9.3
Domitian (81–96)	1,200	984	8.9
Severus (193–211)	1,600	816	
Caracalla (211–217)	2,400	984	

The nominal wage doubled during the first and second centuries, but when we express the wage in terms of grams of silver, we observe that it peaked at the end of the first century, and declined during the second. Yet another look is afforded by translating the wage into wheat, using the Egyptian prices (see below). According to this measure, the soldier wages just barely compensated for inflation during the first century (the difference between 9.3 and 8.9 quintals is less than the uncertainty associated with estimating the real wage).

One area of the Roman Empire for which we have some documentation of economic trends is Egypt. Table 7.6, based on data in Duncan-Jones (1990:151–155) shows how the price of wheat changed during the first three centuries CE.

Table 7.6 Wheat prices in Egypt (averages by period)

Time period	Drachmas per artaba	g S per quintal*
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<i>Private transactions</i>		
18 BCE – 47 CE	7.2	90
78–79 CE	10.6	116
112–135 CE	10.0	105
150–200 CE	15.3	124
250–300 CE	42.9	44
<i>Official prices</i>		
13 BCE – 65 CE	3.3	42
99–162 CE	9.0	94
246–294 CE	146	73

Both private transactions and official prices tell the same story. The nominal price of wheat doubled or more towards the second half of the second century. This trend was not due just to the debasement of Roman coins during the second century (see below), because the price of wheat also increased when expressed in silver units. During the third century, the nominal price of wheat continued to rise, reaching 200–300 drachmas per artaba by the last quarter (Duncan-Jones 1990), but it appears that this increase was entirely due to debasement. When expressed in silver equivalents, we see that the price of wheat actually declined in the third century.

The best recent compilation of economic trends in Egypt during of the second and third century is in Scheidel (2002). Scheidel reports on the means and medians of land prices, land rents, wheat and other commodity prices, and wages; both in nominal and real terms. The real (deflated) values are of particular interest, because rapid inflation due to debasement of the denarius during this period (see next section) makes nominal values uninformative. For example, there are some data on agricultural land prices in Egypt, but the interpretation of what these data tell us generated some controversy. Duncan-Jones (1974) gave the following table:

Table 7.7 Land prices in HS per iugerum (Duncan-Jones 1974:366).

Period	<i>n</i>	Median	max	min
First century	11	141	459	11
Second century	16	183	612	26
Third century	8	147	1101	58

The median first increases and then decreases, which would make sense in demographic-structural terms. The third century decrease was probably even more profound, given debasement of silver coinage. However, Duncan-Jones observed that both the maximum and the minimum prices kept increasing throughout the period. This trend throws doubt on the validity of the trend observed in the median price. Alston (1995) attempted to trace price trends separately in “low quality”, “average”, and “high quality” land. Scheidel (2002) instead used two categories (less or more than 600 drachmas per aroura). Both were roundly criticized by Bagnall. For this reason, in the following we focus on real rents (there is also some information on the change in real wages from the second to third century, which we will review in Section 7.4).

Table 7.8 Real land rents. Annual rents for wheat fields (artabas per aroura) (Scheidel 2002: Table 1). Only means are shown; medians show the same trend. Based on 133 data points.

Period	Arsinoite	Oxyrhynchite	Hermopolite	Herakleopolite	Average
27 BCE – 99 CE	7.37	5.41			6.39
100–165 CE	8.79	7.82	7.65		8.09

205–268 CE	3.23	5.89	6.27	4.91	5.08
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Changes in real rents are consistent among all regions, and show an increase from the first century towards 165, the eve of the plague, followed by a decrease in the third century. The post-plague decline on average is 37%, suggesting a substantial population decrease resulting from epidemics and sociopolitical instability.

Elite overproduction and competition

In the previous chapter we used the statistics of Hopkins and Burton on consular ascendance/descendance rates to argue for increasing intraelite competition towards the end of the Republican cycle. We are lucky in that these authors have also provided similar statistics for the Principate period. However, there are several caveats we need to take in consideration when considering these numbers. First, whereas the consulars of the Republican period were at the pinnacle of both the status and power pyramids, during the Principate they retained only status, while power passed into the hands of emperors and their top administrators, who by the end of the period were recruited almost entirely outside the senatorial order (mainly, from the equestrians). Second, the data are much sparser than those for the Republic because Hopkins and Burton elected to investigate only every other generation of the consular aristocracy. Thus, instead of having eight data points to cover the period of Principate, we only have four. Third, whereas under the Republic the number of men elected to consulship in any generation stayed roughly constant because only two consuls could be elected in a year, under the Principate the number of consuls elected per year increased gradually to 8 or 10 under the last Antonines. This, obviously, affects the conclusions we draw from the difference between proportions of consuls with consular ascendants and descendants. As a result of these caveats, our conclusions below are much more tentative than in the previous chapter. The main problem is the sparsity of data; it would be extremely useful to complete the Hopkins and Barton job by filling in the missing generations.

Table 7.9 Inheritance of consular status under the Principate. Data from Hopkins and Barton (Hopkins 1983).

Period	Consuls per year	Consular ascendants		Consular descendants		Competition index*	
		3-gen#	fathers	sons	3-gen	1-gen	3-gen
18-54	6	54	46	32	40	14	14
70-96	8	24	18	25	32	-7	-8
131-160	9	32	27	29	36	-2	-4
193-235	9	37	32	19	26	13	11

*Competition index = proportion with consular ascendants – proportion with consular descendants

“3-gen” refers to three generations of ascendants (great-grandfather, grandfather, father) or descendants (son, grandson, great-grandson). “1-gen” is either a father or a son.

Hopkins and Burton’s data (Table 7.9) suggest that during the first century the proportion of consuls with consular fathers dropped dramatically from 46 to 18 percent. The proportion of consuls who had a consular ascendant going three generations back exhibits the same qualitative dynamics. In other words, the grip of the hereditary nobility on consular status was substantially weakened. This trend makes sense in light of what we know about the elite dynamics. Old nobility was decimated during the Julio-Claudian periods. At the same time the size of the consular stratum expanded substantially—under Augustus only 2.6 consuls, on average, were appointed per year. Hopkins and Burton estimate that by the end of the century, 8 ordinary and suffect consuls were appointed every year. Assuming an average life expectancy of 30 years, the size of the consular stratum tripled during the first century from 80 to 240 individuals.

In the second century the trend inverted, and the proportion of consuls with consular fathers climbed from 18 to 27 and then 32 percent. The hereditary aristocracy, thus, was reasserting its grip on consular positions, although it never reached the same level of control that it had in 18–54 (or during the second century BCE, as we discussed in the previous chapter).

The proportion of consuls with consular descendants fluctuated at a roughly constant level until mid-second century, and then plunged during the period of 193–235 (Table 8.9). What is particularly interesting is the difference between proportions of consuls with consular ascendants and consular descendants (the “competition index” in Table 7.9). During both 70–96 and 131–160 this index is positive, suggesting a relaxation of intraelite competition. By the end of the second century, we revert to the pattern typical of heightened competition and forced downward mobility, similar to that observed in the Gracchan period of the Republic.

Any conclusions based on these data must remain tentative until the gaps are filled in. But the data patterns, and especially the competition index, are consistent with our narrative in Section 7.2 (*Elites*), where we argued that during the Principate the fortunes of the top elite stratum first declined, reaching a trough during the Flavian period, then increased under the five good emperors and reached the peak during the second half of the second century. Beginning with Marcus Aurelius and, especially, Commodus we observe signs of elite overproduction and increased competition that eventually contributed to the state breakdown of the late second century.

One typical sign of elite overproduction is the growth of administrative posts. According to H. G. Pflaum (cited from Hopkins 1983:180) there were 64 equestrian posts in the provinces in the reign of Domitian (81–96) and 173 in the reign of Septimus Severus (193–211). Thus, although during the second century the territory of the empire expanded to a very insignificant degree (and in places even contracted) the number of administrative posts grew almost three-fold, perhaps reflecting pressure from the surplus elites for government positions.

7.4 Crisis (165–197 CE)

Population

The population decline during the disintegrative phase of the Principate cycle resulted, as usual, from a complex combination of causes. It is probable that population numbers began declining in Italy during the second century (this is what occupation index data suggest, see Figure 7.1a), but the first major, empire-wide shock was delivered by an epidemic that reached the Roman empire in 165, the “Antonine plague.” The Antonine plague was probably smallpox, or a combination of measles and smallpox (Scheidel 2002). It was reputedly brought from the eastern Mediterranean by the Roman troops returning from the Parthian War (Duncan-Jones 1996). In 165 it hit Nisibis and Smyrna. Next year it reached Rome. In 168 the plague raged in Rome and many provinces. By 169 it caused annihilating losses in the number of taxpayers in Egypt due to mortality or flight. Reports of plague visitation, often causing catastrophic losses, crop up in 172, 174, 175, 179, 182, and 189 (Duncan-Jones 1996:115–117). Dio wrote that the plague of 189 in Rome was the worst he knew, sometimes killing 2,000 people per day (Duncan-Jones 1996:115). The Roman empire was struck again by a catastrophic wave of epidemics in the 250s and 260s (Scheidel 2002).

The demographic impact of the Antonine plague is best documented in Egypt. In the Fayum area the tax base dropped between 33 and 47% (Duncan-Jones 1996:120). Smaller villages in the Delta suffered even more: between 160 and 170 their populations declined by 70–93% (Duncan-Jones 1996:121). Some of this decline was due to flight, rather than mortality, but

most of the population, apart from the rich, did not have the means for escaping the plague. Certainly, losses in the taxpayer base persisting for four years after the plague cannot be explained by emigration. Mortality continued to be severe during the later outbreaks. For example, one-third of the tax-paying population of the village of Socnopaiou Nesos in the Arsinoite died in January-February of 179. This Egyptian papyrus specifically recorded mortality, not flight (Duncan-Jones 1996:121). Outside Egypt no estimate of population losses due to epidemics of 165–189 seem possible. Literary sources report heavy mortality in a variety of places across the empire and among the soldiers (reviewed by Duncan-Jones 1996). Frier’s (2000:815–816) estimate (“As much as 10 per cent of the empire’s total population may have perished in the plague; in cities and military camps the percentage was perhaps twice as high.”) seems to us overly conservative. Many historians, similarly, had doubted that the Black Death of the fourteenth century caused catastrophic mortality until the modern research decisively demonstrated the scale of the catastrophe (Chapter 2). Our guess is that the mortality of the Antonine plague during the whole period of 165–189 was comparable to that of the Black Death in western Europe during 1347–1380, so the estimate of Frier needs to be doubled or even tripled. A much more plausible estimate is that of Scheidel (2002): “massive mortality of perhaps 25% in the first 10-15 years after the first appearance” (see also Zelener 2003).

At the same time, there is no need to overemphasize the importance of the plague for the subsequent course of the Roman history. The plague hit the empire when it was already under an enormous demographic-structural stress. In the absence of such stress, the population losses caused by the epidemics would be made up in a generation, at most two. But by 165 the social system was already near a critical point, and the plagues pushed it beyond it. Arguing by analogy with the events of post-Black Death western Europe (see Chapter 2), we suggest that the Antonine plague imposed higher mortality on the productive classes than the elites. A serious elite overproduction problem had already developed by 165; the differential mortality due to the epidemic hastened and exacerbated the developing political crisis. According to our theory, it was the ensuing century of sociopolitical instability that was responsible for preventing population recovery after the epidemics (and in fact, probably caused further population decline).

The real wages (expressed in wheat equivalents) moved in the direction consistent with the idea of third-century population decline.

Table 7.10 Real wages of agricultural laborers in Roman Egypt (index = 1 in the second century). (Scheidel 2002: Table 10)

	Daily wages	Monthly wages
Second century	1.00	1.00
250s–260s	1.25	1.17

By the 260s the real wages increased by about 20% compared to the pre-plague period. Other more anecdotal data support the general trends summarized above. For example, in the village of Theadelphia in the Fayyum the 2,500 residents in the 130s cultivated 1600–1700 ha of arable. In 216 an unknown but, obviously, diminished number cultivated 990 ha of arable. What is of particular interest is that the arboricultural land (vineyards and orchards) increased from 140 ha in 158 to 415 ha in 216. “These documented changes indicate that, after the plague, fewer people had to be fed, and that these villagers enjoyed a higher living standard than in the 2nd c., either because they could afford to consume more wine and fruit or because they derived profit from selling these products to urban customers” (Scheidel 2002). The decrease of the importance of cereals in the commoner diet in the post-plague Egypt parallels that in England after the Black Death.

Political crisis

After the murder of Domitian and the installation of Nerva by the senate in 96, the Roman Empire entered a period remarkable for its internal stability. The “five good emperors” enjoyed the goodwill of the senatorial elite and other propertied classes and the loyalty of soldiers (Ward et al. 2003:335). Although social and economic pressures were rising, as described in the previous sections, the internal peace lasted until 165, when it was shattered by the arrival of the plague. The subsequent period has been aptly called the “Antonine military crisis” by Greenberg (2003:424): “the Germanic incursions into Pannonia in 167; the invasion of Italy itself by the Marcomanni, and Greece and the Balkans by the Costobocci in 170; devastating raids upon Spain and N. Africa by Mauri in 171; the Boukoloï revolt in 172; the rebellion of Avidius Cassius in 175; a subsequent wave of invasions of Spain and N. Africa in 177; protracted campaigning against the various German tribes until Marcus’ death.”

Despite these pressures, Marcus Aurelius was able to hold the ruling class of the Empire together. The collapse occurred under his heir Commodus (180–192). It resulted from “divisions and jealousies among the members of the Imperial family, military officers, and powerful senators” (Ward et al. 2003:379). The first plot was hatched in 182 when a number of senators conspired with Commodus’ sister Lucilla to assassinate him. It was followed by the execution of the conspirators and, later, a number of other senators who had been close to Marcus Aurelius. Disaffection also spread into lower strata. Probably as a result of declining real wages (see above), there was a series of mutinies in provincial armies, often called the Deserters’ War, which seems to have spawned another attempt at assassination (Ward et al. 2003:380).

The reign of Commodus ended in what appears to be a classical secular state collapse brought on by the fiscal bankruptcy (see above). Commodus was poisoned during the end of the year celebration, survived the attempt (probably due to vomiting most of the poison as a result of over-drinking), and was assassinated the next day when he was recovering in the bath, strangled by his wrestling partner, Narcissius, who joined the the plot against Commodus (Ward et al. 2003:382). The next two emperors, Pertinax and Julianus, lasted only 87 and 66 days, respectively. The Senate called on Pescenius Niger, the governor of Syria, to seize the throne. Simultaneously, the armies of Britain and the Danube declared for their respective commanders, Clodius Albinus and Septimus Severus. The latter won the race to Rome and became the next emperor (193–211). The civil war continued from 193 to 197. Septimus first moved against Niger, defeating and killing him in 194. It then took a lengthy siege to reduce Niger’s base of operations, Byzantium, which fell only 195. Meanwhile, the Parthians meddled in the Roman civil war, and Septimus campaigned there in 194 and 195. Also in 195, Albinus, supported by a large following in the senate, crossed the channel into Gaul. After two more years, Septimus’s forces met and defeated the army of Albinus near Lugdunum (Lyons). Septimus allowed his troops to burn Lugdunum, and then carried out a ruthless campaign of extermination against the adherents of Albinus in the provinces and in the senate (Ward et al. 2003:384).

7.5 Depression (197–285 CE)

The reigns of Septimus (from 197) and his son Caracalla (211–217) were relatively peaceful. These two decades appear to fit the pattern of generation alternation during the decentralization phase. But the equilibrium was fragile, and slowly unraveled, beginning during Caracalla’s reign. Up to 235 the sociopolitical instability took the form of palace coups. It began in 211 when Caracalla killed his brother and co-ruler Geta and carried out a purge against Geta’s supporters. After that it was a monotonous litany of emperors assassinated and elevated: in 217

Caracalla was assassinated and Macrinus installed, in 218 Macrinus was assassinated and Elagabalus installed, and in 222 Elagabalus was assassinated and Severus Alexander installed. Alexander lasted until 235 when he also was assassinated. With the death of Alexander intraelite conflict took the character of a general civil war, and the the empire was simultaneously ruled by several emperors/pretenders. (Stearns 2001): Maximinus “Thrax” was proclaimed emperor by the Rhine legions after the murder of Alexander. He beat back the thrusts of Sarmatians, Dacians, and Goths but was opposed by the senate. In Africa, the legions proclaimed as emperors the 80-year-old proconsul M. Antonius Gordianus and his son Gordianus II (238). Both perished in a war with the prefect of Mauretania who supported Maximinus. In Rome the senate raised from their own numbers M. Clodius Pupienus and D. Caelius Calvinus Balbinus. Maximinus was slain by his own troops while besieging Aquileia (June 238). The praetorian guard murdered Pupienus and Balbinus, and forced the senate to recognize the thirteen-year-old grandson of Gordianus, Gordianus III, as emperor (238–244). Gordianus was murdered by his praetorian prefect, Marcus Julius Philippus “the Arab” (244–249). Philippus was killed at Verona (249) in battle against his commander in Dacia, Decius. Gaius Messius Quintus Traianus Decius (249–251) was slain by the Goths in 251. Gaius Vibius Trebonianus Gallus (251–253) was proclaimed emperor by the army of Moesia. In his reign began a 15-year plague. When he marched against his successor in Moesia, the Moor M. Aemilius Aemilianus, his own troops slew him (before Oct. 253). Aemilianus (253) was proclaimed emperor, then murdered, by his own troops.

The Age of Gallienus (253–268, first co-ruler with his father Valerian, then sole ruler) saw the catastrophic external invasions and plague. Two-third of the population of Alexandria perished, and 5,000 people died in Rome every day (Ward et al. 2003:397). The internal warfare reached the peak, with the empire fragmenting and pretenders cropping up everywhere. This was the age of “thirty tyrants” (Stearns 2001). During the reign of Gallienus alone, eighteen usurpers attempted to seize the throne (Ward et al. 2003:397). Two-thirds of territory of the Roman Empire seceded (the Gallic Empire under Postumus and the Palmyrene Empire under Odenathus and Zenobia).

A watershed of sorts occurred in 268, when staff officers of Gallienus, all of them Illyrians, assassinated the emperor and assumed control of the empire. This cabal of frontier officers produced a series of emperors, known as the “Illyrian Soldier Emperors”, whose rule was interrupted only by a short interlude in 275–276 when a senatorial candidate sat on the throne. The Illyrians began the task of restoring the empire. Their job was largely accomplished in 285 with Diocletian’s victory over Carinus in the battle of Margus.

7.6 Conclusion

Although our database on the economic and social dynamics of the Roman Empire during the Principate is not as complete as one would wish, the empirical trends that it delineates are generally in agreement with the predictions of the demographic-structural theory. Thus, the population trend was up until the middle of the second century, followed by stagnation and collapse brought on by the Antonine plagues and then by endemic civil warfare of the third century. There were, however, important regional differences. In particular, it appears that the population of the Imperial core (Italy) peaked much earlier than in the provinces, and may have strated declining during the second century.

The economic data are the sparsest part of the database. Quantitative series are available only for one province (Egypt) and even in Egypt the data are fragmentary and there are many gaps. What data exist, however, support the Malthusian dynamic of increasing popular immiseration toward the mid-second century, and declining economic misery after population decrease after 165.

The elite dynamics exhibited a typical phase shift with respect to the commoner population trends. While the general population grew during the expansion phase (27 BCE–96 CE), the elites (and especially the top stratum, the senatorial aristocracy) shrank and lost some of their wealth and power. The elite numbers and income expanded again during the stagflation phase (96–165 CE). As a result, one index of elite consumption, the expenditure on monumental buildings had a curious two-humped shape, with one peak in the early first century and the second peak in the mid-second century (Figure 7.8).

The state finances were healthy during the integrative phase. There were periods of fiscal strain during the first century, but they were fleeting. In any case, the large budget deficits reported for Caligula and Nero are suspect because of the hostility of the sources to these “bad” emperors. In contrast, the financial crisis during the disintegrative phase was very real, as indicated by the drastic debasement of the Roman coinage in the third century (Figure 7.4).

The integrative phase of the Principate cycle was also the period of external conquests, especially early on, and successful defense of the *limes* later. The state expenditures on the public building reached the peak towards the end of the integrative phase (Figure 7.8). One feature that does not fit the model is the recurrent instability during the first century. However, most of it took the form of palace coups, and the only significant example of civil war during this period (following the overthrow of Nero in 68) lasted just 18 months. The stagflation phase (96–165) had no significant instability events. By contrast, the disintegrative phase was characterized by recurrent civil war, barbarian invasions, and territory loss.

Overall, the fit between the theory and data is probably as good as it could be in historical applications. With the caveat that the data are somewhat scanty, the Principate period appears to be another nearly perfect secular cycle. Again, the probable reason for the good theory/data match is that the Roman Empire was a gigantic state (the only other state that could even remotely threaten it was the Parthian empire) and, therefore, its rise and fall dynamics were primarily governed by endogenous mechanisms.

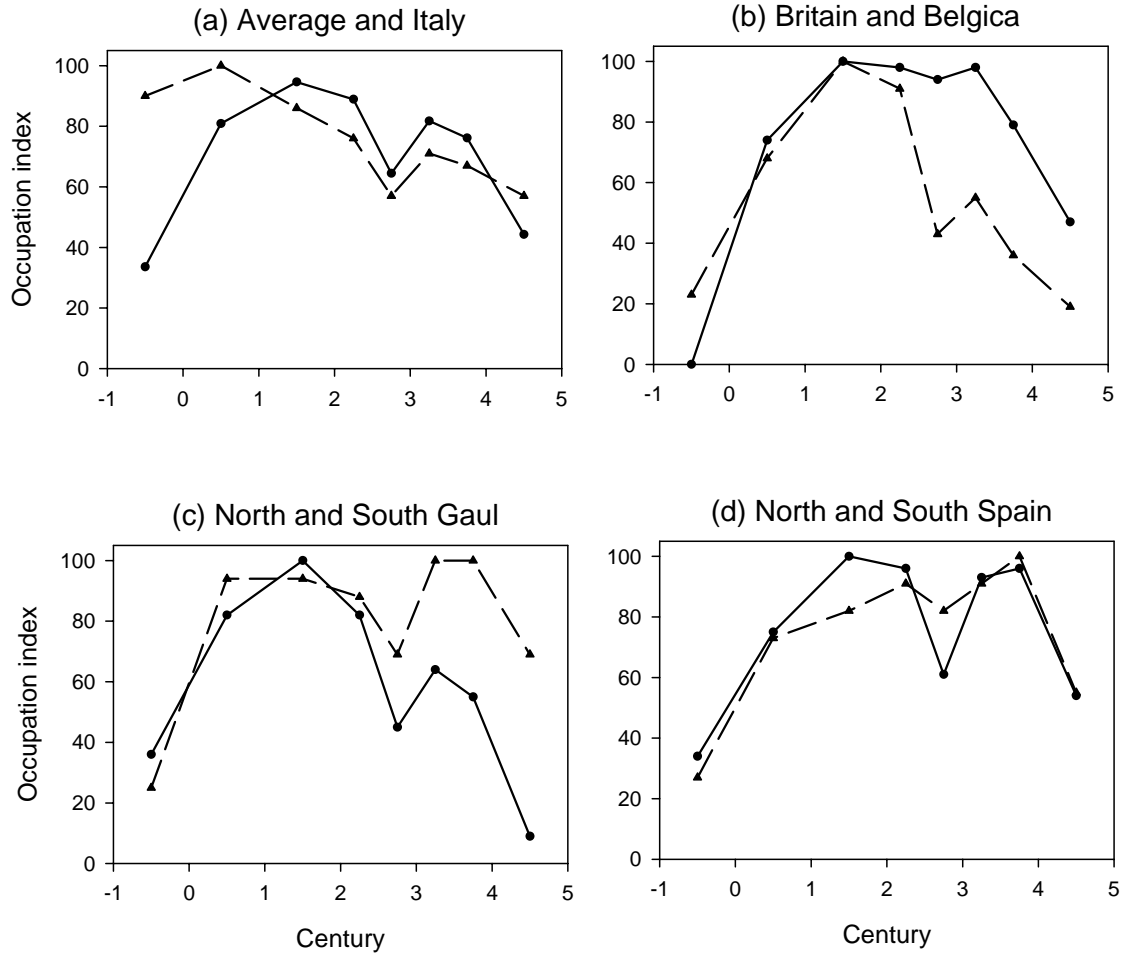


Figure 1: Occupation indices

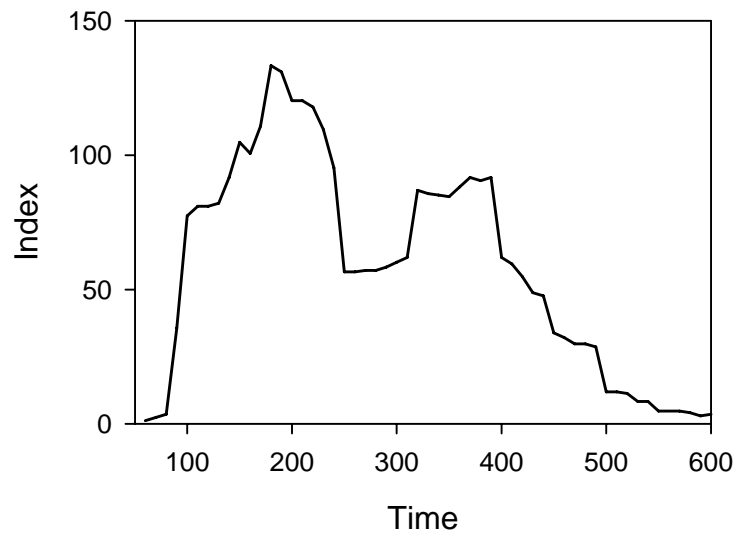


Fig 2: Importation of African Red Slip Ware

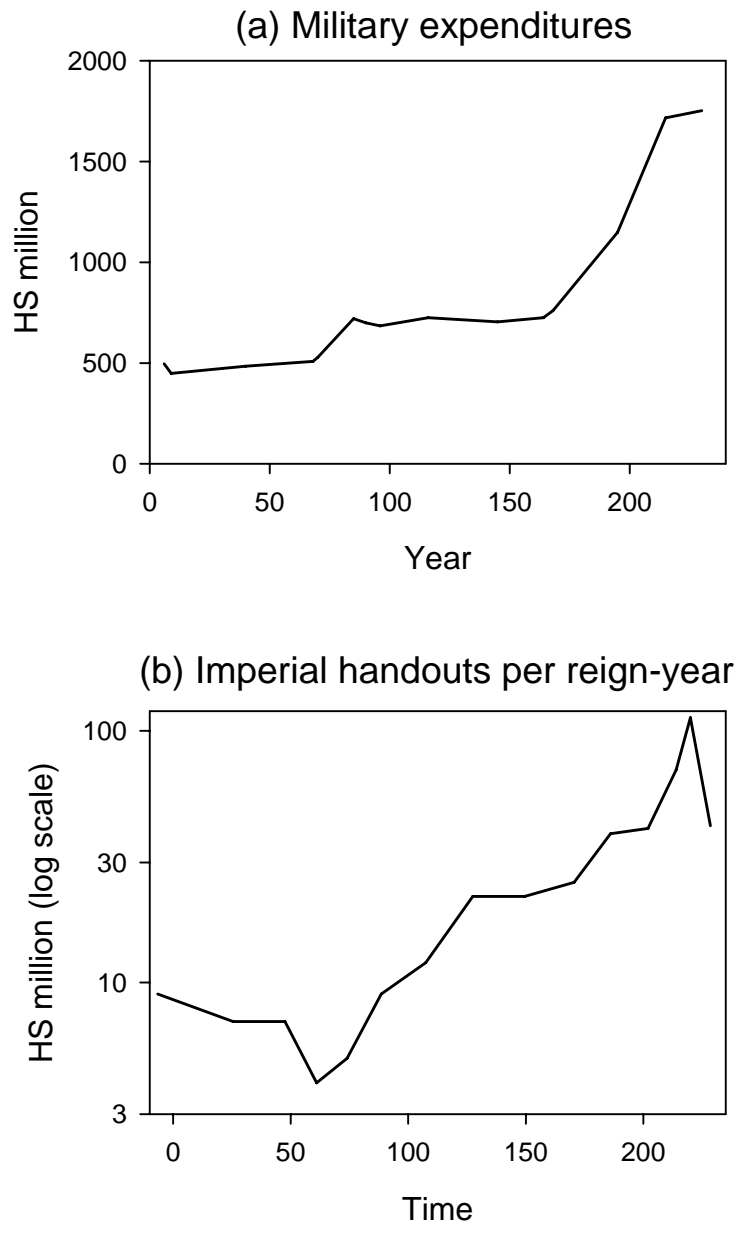


Figure 3. State expenditures during the Principate

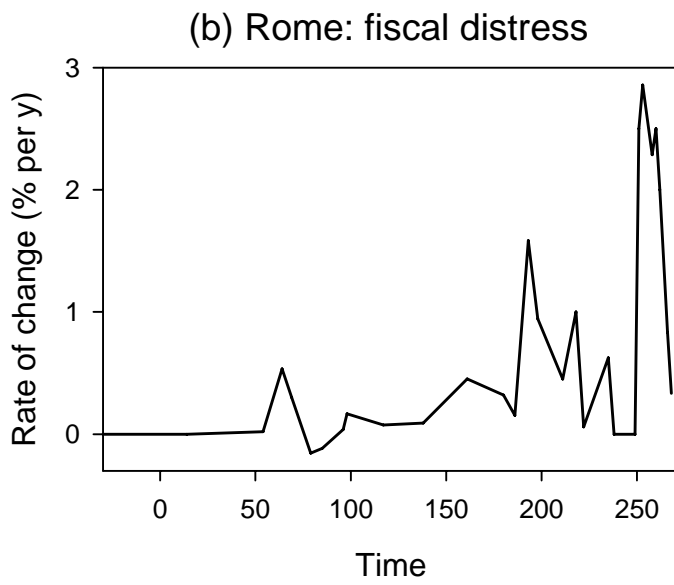
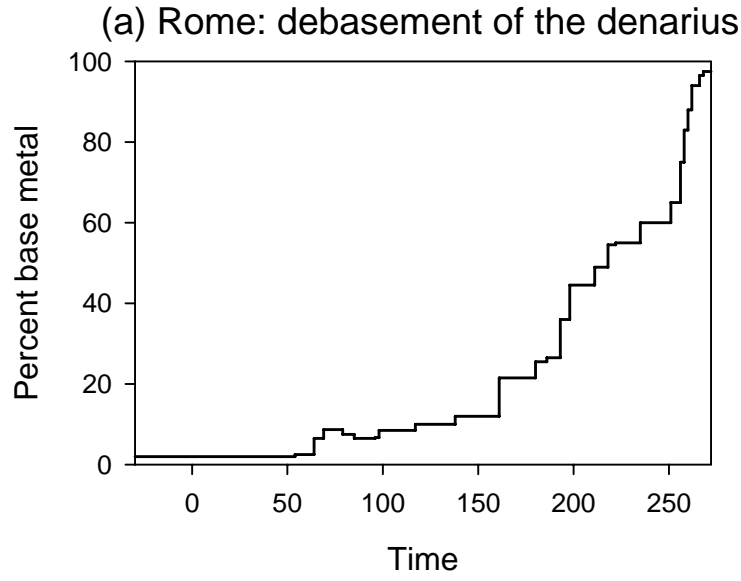


Figure 4: Coin debasement

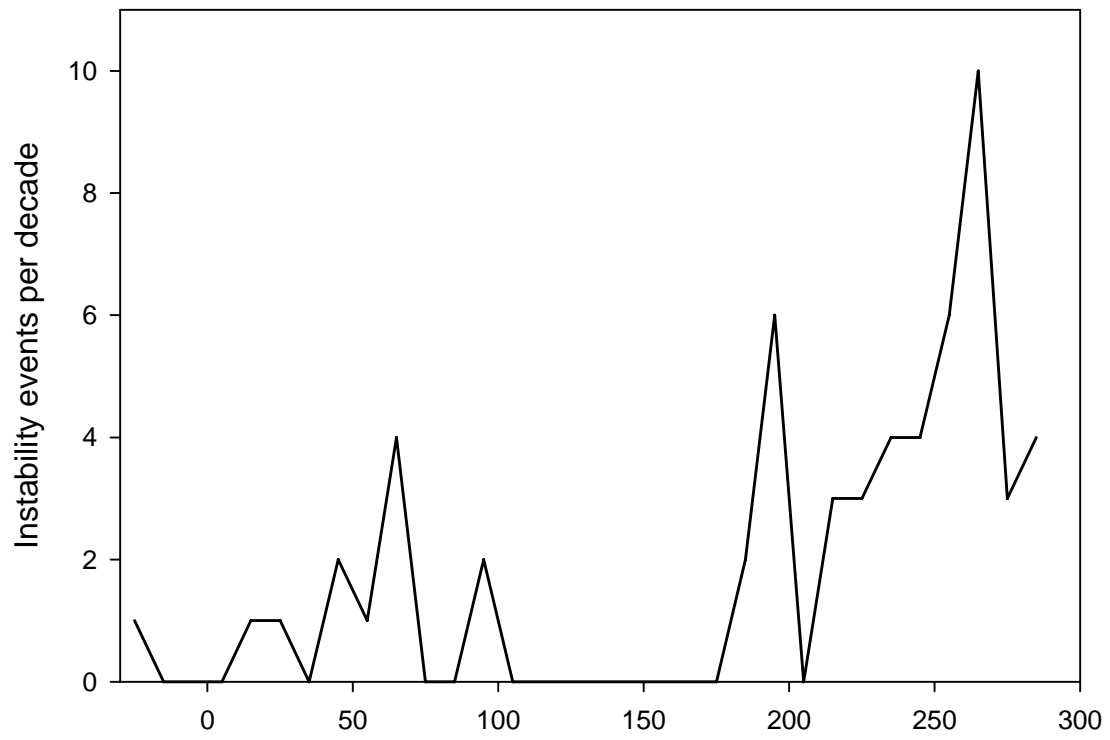


Figure 5: Sociopolitical Instability Index

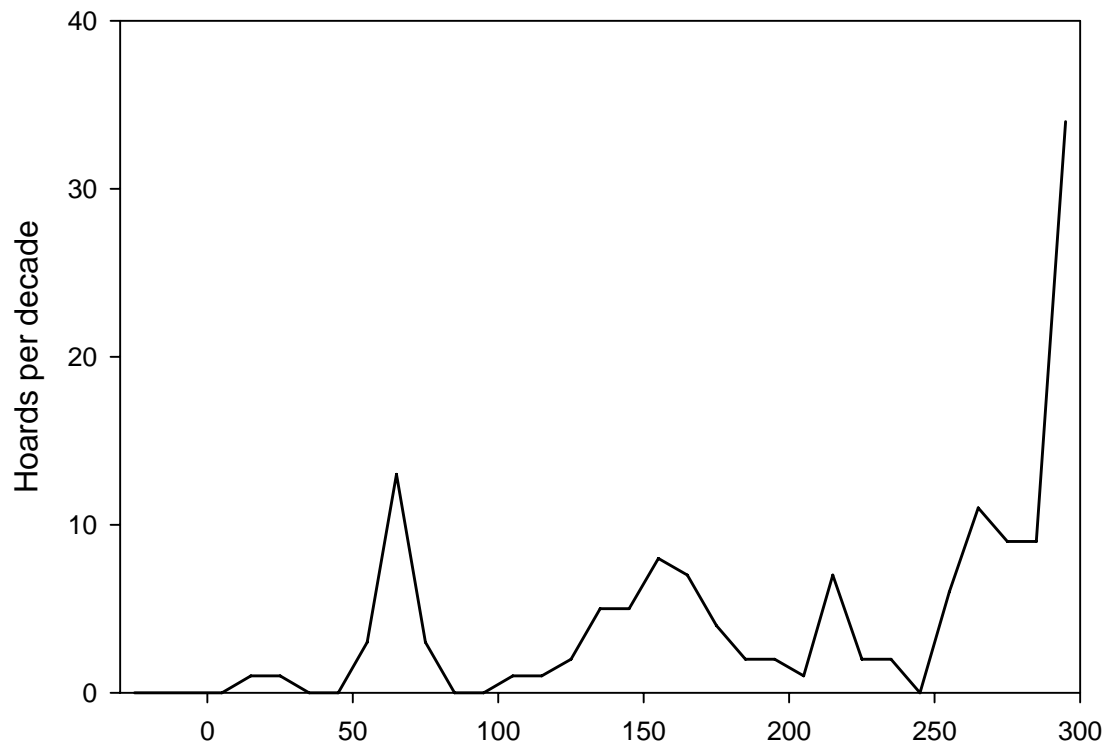


Figure 6. Alexandria hoards

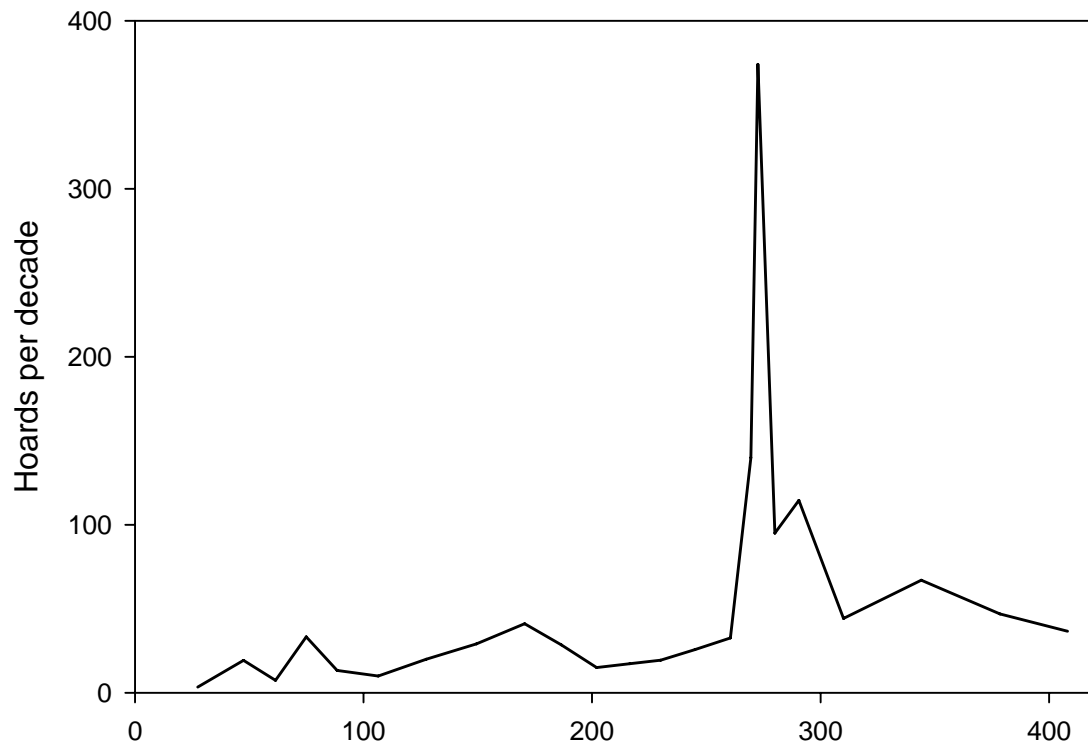


Figure 7. Romano-British hoards

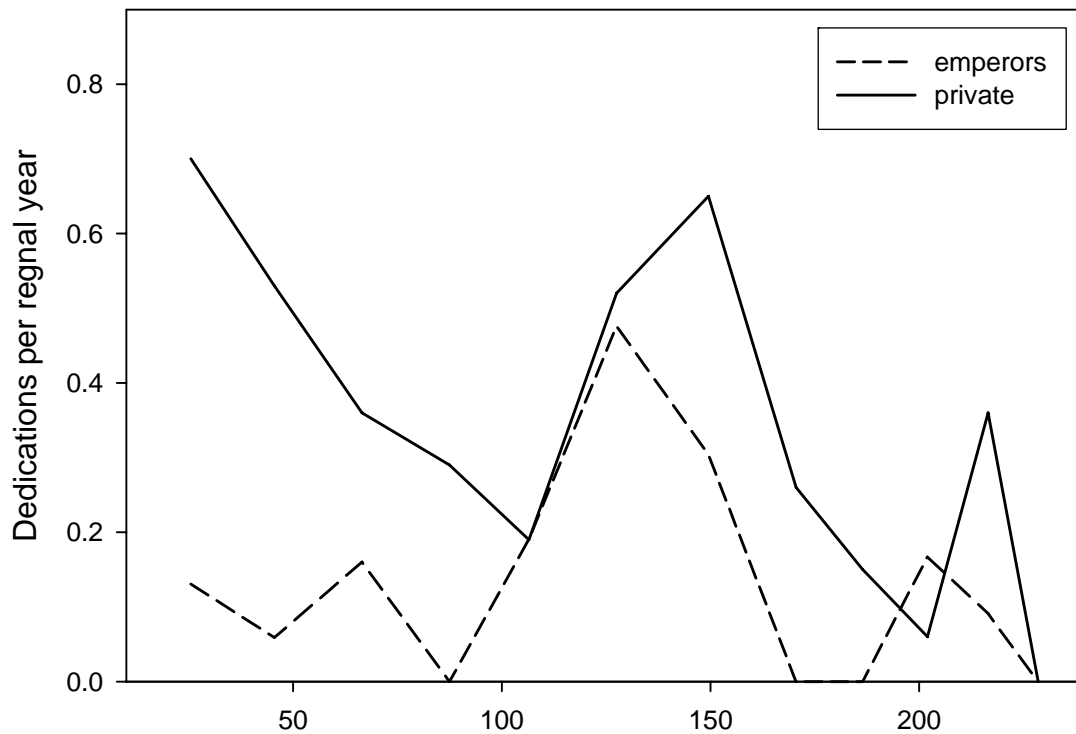


Figure 8: Dated buildings

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