

The Terms of Land Tenure in the Roman Empire

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Prepared for the conference on Land & Natural Resources in the Roman World, Brussels, May 2010. I thank Edward Flores and Brendan Sullivan for research assistance under the MIT Undergraduate Research Opportunities Program. I thank Bob Allen, Alan Bowman, William Broadhead, Kyle Harper, Michael McCormick, Cécile Morrisson, Nathan Sussman and participants in seminars at The Hebrew University and Oxford University for help. The views expressed are mine alone.

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I argue in this paper that the market for land in the Roman Empire worked approximately like the land market today. We can buy and sell land today with few impediments and use it as we wish; we own land as a *freehold*. The Oxford English Dictionary defines a freehold as “Permanent and absolute tenure of land or property with freedom to dispose of it at will.” The dictionary continues that the term originated in the fifteenth century and “was originally used to denote the holding of an estate in land with the rights of a free man, as opposed to a villein, and was taken to include the holding of an estate or interest in fee simple, in fee tail, or for term of life.” These terms—villein, fee simple, fee tail—post-date the Roman Empire, and the use of these terms to indicate current conditions illustrates how hard it is to understand the distant past. In the United States, land legally is still held in fee simple.

Nothing about land is quite what it seems, and land owned in fee simple or a freehold is subject to many constraints. There are zoning laws in most parts of the United States that determine what you can build on land and for what purpose. There are building codes that determine many of the details of any structure you construct on your land. And governments reserve the right of eminent domain, that is, the right to confiscate your land if they choose to do so. In the complex federal system of the United States, these restrictions on land ownership are imposed by localities, state governments and the federal government.

The problem of course is that land is immobile. As the old saw goes, the properties that determine the value of land are location, location, location. If your neighbor is doing something you don't like, you can move away but you cannot take your land with you. Many of these neighborly impacts do not go through markets and therefore are called *externalities* by economists. The presence of so many externalities complicates the functioning of any land market from Roman times to today.

Even today, there are large transactions costs in conveying ownership of land and houses from one person to another. Since land does not move, brokers need to be hired to arrange for putative buyers to come to the land. The title of the land must be searched to make sure that the seller has the right to sell the property to the buyer. Then the buyer has to register his or her ownership of the property in a government register to be taxed and in order to be able to sell it again at some future time. The cost of these operations can be considerable. These transaction costs often are close to ten percent of the price and more than ten percent for cheaper properties.

These problems indicate that the land or housing market can never work as well as the market for grain or even for labor. I suggest that there are three attributes of land ownership that indicate a functioning market for land. First, there is a price for land that can change freely when conditions change. Second, people can buy and sell land at this price without reference to many outside authorities, that is, they can make their own decisions rather than reflecting the decisions of people not directly involved in the land sale. And third, there are few restrictions on or obligations from most land holdings and land transfers other than the payment of taxes.

Direct evidence of the latter two attributes, that land can be sold without too many strings attached, has been compiled by Myrto Malouta (in progress, 2011). There are papyrus records of many land sales in Roman Egypt during the first century of the Principate. The properties were both rural, often vineyards, and urban, including houses and land. Many sales were listed with accompanying mortgages, typically at twelve percent. A few examples suggest the nature of these transactions. One third of one fourth of a three-story house was sold in 30; three-quarters of an old house and courtyard were sold in 40 with a mortgage of 72 drachms of minted silver, at 1 drch/mna interest a month (P. Mich. V 257, 329).

These records indicate a thriving land market, but they cannot show that prices moved because they are isolated observations lacking price information. They consequently need to be supplemented by anecdotal evidence that indicates land prices were flexible in the late Republic and early Empire. For example, Columella (*On Agriculture*, I. 2. 1) said, “I am of the opinion, therefore, that land should be purchased nearby.” This is the kind of advice that one gives quite naturally in modern surroundings and seems no more remarkable to Columella then. Varro (*On Agriculture*, I. 4. 2-3) was even more explicit: “For any man would rather pay more for a piece of land which is attractive than for one of the same value which, though profitable, is unsightly. Further, land which is more wholesome is more valuable, because on it the profit is certain.” He not only revealed that land could be purchased freely but that land values reflected aspects of the land that ordinary people find attractive, ranging from attractiveness—that is, favorable externalities—to productivity.

The well-known biography of Marcus Crassus by Plutarch describes the ease in buying and selling urban land and buildings that echoes the agricultural writers:

“Marcus Crassus, observing how extremely subject the city was to fire and falling down of houses, by reason of their height and their standing so near together, he bought slaves that were builders and architects, and when he had collected these to the number of more than five hundred, he made it his practice to buy houses that were on fire, and those in the neighborhood, which, in the immediate danger and uncertainty the proprietors were willing to part with for little or nothing, so that the greatest part of Rome, at one time or other, came into his hands.

“Later in life he was suspected to have been too familiar with one of the vestal virgins, named Licinia, who was, nevertheless, acquitted, upon an impeachment brought against her by one Plotinus. Licinia stood possessed of a beautiful property in the suburbs, which Crassus desiring to purchase at a low price, for this reason was frequent in his attentions to her, which gave occasion to the scandal, and his avarice, so to say, serving to clear him of the crime, he was acquitted. Nor did he leave the lady till he had got the estate.”

These are anecdotes, but their uniformity indicates that the process of purchasing and selling Roman land was not particularly difficult. Even in only few examples, we have reference to rural, urban and suburban land being sold freely at prices agreed upon by the buyer and seller. A final anecdote reveals how flexible Roman land prices were. There was a credit crisis in 33 CE in which land prices apparently fell rapidly, like stocks and houses in a modern crisis.

According to Tacitus (*Ann.* 6.16-17), the crisis originated with a conflict among the ruling class. One group accused the other of violating old usury laws that limited the interest rate to one percent a month or 12 percent a year. The Senate was divided as most senators apparently were extending credit to others in some form, and the emperor, Tiberius, gave the senators 18 months bring their affairs into conformity with the law.

Tacitus describes the implications of these events as follows. “Hence followed a scarcity of money, a great shock being given to all credit, the current coin too, in consequence of the conviction of so many persons and the sale of their property, being locked up in the imperial treasury or the public exchequer. To meet this, the Senate had directed that every creditor should have two-thirds of his capital secured on estates in Italy. Creditors however were suing for payment in full, and it was not respectable for persons when sued to break faith. So, at first, there were clamorous meetings and importunate entreaties; then noisy applications to the praetor's court. And the very device intended as a remedy, the sale and purchase of estates, proved the contrary, as the usurers had hoarded up all their money for buying land. The facilities for selling were followed by a fall of prices, and the deeper a man was in debt, the more reluctantly did he part with his property, and many were utterly ruined. The destruction of private wealth precipitated the fall of rank and reputation, till at last the emperor interposed his aid by distributing throughout the banks a hundred million sesterces, and allowing freedom to borrow without interest for three years, provided the borrower gave security to the State in land to double the amount. Credit was thus restored, and gradually private lenders were found. The purchase too of estates was not carried out according to the letter of the Senate's decree, rigor at the outset, as usual with such matters, becoming negligence in

the end.”

In these turbulent times of 2011, we can translate Tacitus’ statements into our current framework. The crisis may have originated in the deflation of a housing boom (Frank, 1935). Creditors were suing for relief, and senators were selling land to raise money. This led land prices to fall, and the fall was intensified by two processes familiar from the Great Depression. First, many senators hoarded their money to remain safe in these troubled times, reducing the purchasing power to buy land. Second, as land prices fell, the burden of senators’ debt rose in relation to the value of their property and reduced spending even more. The first of these was called the Paradox of Thrift by Keynes (1936); the second, the Debt-Deflation-Theory of the Depression by Fisher (1933).

In addition, the fall in land prices was sufficiently rapid to lead to a potentially dangerous destruction of private wealth, causing Tiberius to step in to stop the panic. Again, he used a technique that we still use two millennia later, known since 2000 as the “Greenspan put.” The important point here is not the panic, but rather that land prices were uncontrolled and capable of changing rapidly. This is consistent with Crassus sweet-talking Licinia to get a good price for her land. While we cannot observe actual land prices directly, we can see the process of price changes in these stories.

Hopkins (1978) generalized these descriptions to propose a wholesale transfer of Italian land from small to large land owners by the same kind of purchases as recorded for Crassus. The operative change however was not the immediate crisis of an urban fire, but rather the new-found wealth of high-ranking Roman military men. Hopkins thought of the relationship between land ownership and conquest as interactive where each

affected the other. My interest here is with the land market, and I do not need to evaluate or even explore the whole model. Let me therefore describe the one-way process that is at the key of Hopkins' synthesis. Rome expanded greatly in the last two centuries of the republic, the last two centuries before the current era. This expansion was made possible by Roman military prowess which overcame all opponents. (The organization of the Roman army may have been the independent event that started the interactive system in motion. To understand why an independent change is needed to start such a process, see Temin, forthcoming.) The result was a great inflow of booty into Rome in the form of both precious objects and slaves.

The objects must have been for sale, and returnees found that they had money in hand. They used this money to buy land in Italy, land being the only large asset that could be held by rich Romans. The purchasing of land does not seem to be a problem for Hopkins, and it forms a critical part of his interpretation of late republican Rome. If he is right, the inflow of cash into the Italian land market must have inflated the price of land. The countryside at this time therefore must have looked different from the variety of points of view we can imagine. From the point of view of the wealthy, land must have gone from being cheap to being expensive. From the point of view of the small land owners, the rise in price must have been a windfall. Hopkins ignored this aspect of the land sales and assumed that many small farmers went into the army.

It is reasonable to divide the common farmers into two groups. Some of them owned small farms while others were farm laborers without any land ownership. Landowners must have gained from the sale of their land—otherwise why did they sell—and most probably went to towns (Geraghty, 2007). Landless farm workers were

displaced in this model by the slaves that were the other part of wartime booty. They enhanced the army and allowed more conquests to take place. They did not benefit from the riches brought back from conquest; they probably lost as the addition of more slaves increased the Italian labor force and decreased their incomes and wages.

This is the result if there was a Roman labor market, as I have argued (Temin, 2004). Scheidel (2002) tested the effect of exogenous changes on wages in Egypt. He showed there were observable effects, but he unfortunately did not convince all ancient historians of their existence (Bagnall, 2002). The booty therefore increased inequality in Rome in two ways, by increasing the riches of those who had a claim on wartime booty and by decreasing the incomes of those who did not and suffered from greater competition as a result of the imports of slaves. This according to some was the beginning of the end of the republic (Tainter, 1998).

We need to be cautious about Hopkins' views since he asserted that, "slavery also allowed the rich to recruit labor to work their estates in a society which had no labor market (Hopkins, 1978, 14)." A labor market however is not necessary for the analysis of land ownership, as opposed to large questions about the fortunes of Rome. Duncan-Jones (1990, 126) argued that, "The usual processes of transfer of wealth appear to have been by inheritance, by bequest and by marriage." He added that the comments of Columella and Varro do not indicate that most property was acquired by purchase, but he argued in the context of the Tiberian crisis of 33 that the preference of the upper classes "for land rather than cash was probably a deliberate economic choice (Duncan-Jones, 1994, 24)."

These comments appear confused. The issue here is whether there was a market for land. It is not necessary that all land or even most land be bought and sold in some time period to make a market. It is only needed that enough land be bought and sold that we can speak of the price of land in general, as Tacitus did. If Duncan-Jones is right that wealthy Romans made an economic decision about the assets in which to hold their wealth, they must have considered the price of these assets. That is the essence of economic decisions.

The law of 111 BCE converted much the public land in Italy into private. In other words, the law made more land available for purchase and sale. Both public and private land was available after the legislation, but the Italian and civil wars made it made it “easy to acquire, either by unauthorized occupation or by legal purchase, large quantities of private land, especially land seized from the Italian enemies of Rome or proscribed Romans (Lintott, 1992, 58).” Lintott, differing with Hopkins, argued that the growth of large Italian estates was due more to civil wars rather than the conquest of new territories.

The Roman Republic financed its army from captured booty and from operating silver and other mines during its period of expansion. The Romans instituted a poll tax to mark personal subjection to Rome and a land tax to indicate Roman control of land. Without a large bureaucracy to assess these taxes, the republic farmed the taxes to people known to us as *publicani*. We know a lot about the operations of *publicani*, but less about which taxes were most important for revenue (Badian, 1983; Malmendier, 2010). Revenue from the mines and tax farmers apparently was sufficient to maintain the highly effective Roman army.

Augustus reorganized this system to account for both the advent of the new empire and the cessation of major territorial expansion. He split the revenue into two streams, the traditional taxes controlled by provincial governors as in the republic and a new stream of revenue controlled by the emperor, the *fiscus Caesaris*. “Uniform, if not universal, criteria for counting subjects and assessing their wealth were extended first of all to the *provinciae Caesaris*, the provinces under the direct control of the emperor, and later to the *provinciae populi* as well (Lo Cascio, 2007, 631).” It is necessary to unpack this summary statement to understand the complexity of this change.

Wealth in this context was land. The Romans adopted a scheme for surveying land that indicated its extent, starting from a central point. The process of *centuriation* imposed a grid onto land that did not appear to take much account of natural features like streams and hills. Land surveys were incised on a bronze map, one copy of which was kept locally and another in Rome. Surviving surveys suggest strongly that these maps were used as a basis for tax collection as the tenants of taxable land, *ager vectigalis*, were listed while the private land—presumably untaxed—was not allocated to owners (Crook, 1967, 148). Given the tiny bureaucracy in Rome until the end of the fourth century, it is not clear who kept track of what must have been a large number of bronze land maps in Rome. Land *centuriation* was slated to be done by censors every five years, but we have too few surviving maps and surveys to know if this schedule was binding.

Lo Cascio stated however that the land tax was related to “the monetary value of estates (Ibid.)” rather than an index of their physical size. We know how this is done in the modern world; assessors survey land and house prices as revealed in land sales and estimate—recently by regression analysis—the value of a particular parcel. Rome lacked

the personnel to operate such a system. The emperor must have delegated this operation to someone else. Given the large size of the empire, he must have delegated assessing to people on the ground far away from Rome. He phased out the *publicani* to get more control over his revenue. Instead this task fell to censors who served for five years and conducted periodic land surveys. We know about censors in Rome but not how they conducted these censuses in the provinces. Goffart (1974) suggested that taxes were levied on total wealth and only transformed into a true land tax in the fourth century.

The tax rate was about one percent of the value which amounted to about ten percent of the revenue. If the tax was indeed leveled on the value of the property, there must have been land sales to indicate this value. If it was leveled on the value of the produce, some person or agency must have been observing it. If it was levied on the quantity of produce, again someone must have been observing this sharecropping (Crook, 1967, 148; Lo Cascio, 1971, 640). In any case, there must have been a lot of market activity for land and grain underlying the assessment of the land tax.

As Hopkins (1980) famously argued, this process spurred the monetization of the Roman Empire as well as trade within it. He imagined that taxes were levied in the provinces and spent in Rome, but much of the revenue went to the army that was billeted in the provinces. Since soldiers ate the products of farms, much of the tax collection and disbursement could have been made locally and in kind. The sources however do not indicate a kind of share cropping on land owned by the emperor rather than a monetary tax on the value of privately held land.

The army may have consumed up to three-quarters of the tax revenue, and the remainder was used for various expenses in Rome. The emperor had to maintain his

household, which was extensive even if not a bureaucracy. He had to support continued construction in and around Rome for urban and religious purposes as well as to maintain the city. Nero received a bad press for his extravagant expenditures, but the bulk of them were to rebuild Rome after the disastrous fire of 64 (Griffin, 1984). And emperors distributed coin and food to the urban poor in Rome and later smaller towns as well to keep the peace. We know that a large amount of grain was shipped from Africa and Egypt to Rome to feed the populous, but it is hard to know if this was taxation in kind or monetary taxation and purchased grain (Erdkamp, 2005).

Lo Cascio asserted that the assessments underlying the land tax were uniform, but even this cursory survey of Roman tax administration casts doubt on that conclusion. The rules for assessing land may have been uniform, but their administration must have varied provincially and as personnel changed. There is little evidence of resistance to paying the land tax; there is much more evidence of corrupt provincial governors—of which Verres was the exemplar according to Cicero—than of hostile taxpayers. This suggests that the tax rate was low and its administration uniform enough for Roman times.

The argument so far has developed two points. There was a market for land in Rome that allowed there to be market prices and assessed values for tax purposes. Prices could vary, and land could be sold quickly and easily. In addition, land taxes in some form sustained the Roman Empire. These points in turn raise two questions that now need to be answered. Who actually owned Roman land, individuals or the emperor? And what happened to this land and tax system under later emperors?

The jurists and legal commentators described a complex two-part law of land tenure. There were two sets of rules, one for what has been labeled ownership and one on possession. The line between these categories is not clear, and one puzzle for modern observers is to know which set of rules was applicable in any particular case.

Ownership in ancient Rome was a concept distinct from possession of an object. Called *dominium*, ownership conveyed certain rights; namely the right to receive damages from a theft, and most importantly *vindicatio*, which was a legal action taken by the rightful owner of a piece of property to recover his property from the current possessor. The difficulty here lay in actually proving oneself to be the true owner, and something like a modern title search often was used in the process of a *vindicatio* (Johnston, 1999, 53-60.)

Ownership could be acquired in two ways, *ab initio* and *usucapio*. *Ab initio* is the claiming of an unowned place or thing or the creation of one. *Usucapio*, by far the most important method, was the acquisition of ownership through possession for a period of time (two years for land) as long as it was not acquired illegally. Ownership extended to buildings on the land; there was no modern distinction between the structure and the land itself. Only land in Italy could be privately owned, although exceptions were made for some larger *coloniae*, communities of colonial status. They had an “Italian right” (*ius Italicum*) that created the legal fiction that their land was Italian, that they had full *dominium* over it, and they were exempt from taxes (Crook, 1967, 140). And land could be leased. Much of agricultural land must have been leased to tenant farmers, possibly in the form of share croppers, in which the tenants paid the landlord with a predetermined share of their crops. “Although it is not possible to quantify this, it seems clear that farm

tenancy was an important form of land tenure throughout Roman antiquity (Kehoe, 1997, 5).” “As a general rule, the imperial administration exploited these [African and Egyptian] properties by leasing them out, in various forms, to individual small-scale cultivators (Frier and Kehoe, 2007, 139).”

Turning to possession, tenants appear to have had durable tenure on their land even if they did not own it. Taxes appear to have been levied on tenants rather than land owners. Land ownership appears to be special to Italy and public land elsewhere that did not pay taxes. Provincial land was largely *ager vectigalis* that owed taxes. Tax liability went with sales of land even though most taxed land was leased rather than owned. Tenancies could be inherited as long as the taxes were paid, and their transfers were spoken of as buying and selling as commonly as letting and hiring (Crook, 1967, 148, 158). It must have been possible to buy and sell leases, possibly using simpler rules than the cumbersome legal processes for owned land.

Tenants also had rights relative to their landlords that appear to have been supported by the courts. These rights appear to be like common-law rights in the modern world, although there was no common law at the time. Roman courts were consistent in their support of tenant rights when the tenants argued that landowners were encroaching on their rights. “Rather, the state used the law to establish a more even playing field to facilitate the type of investment and cooperation that could lead to economic growth (Kehoe, 2007, 194).”

Egyptian taxes were an exception to the general rule of tax liability since land owners appear to have paid taxes in Egypt. Modern scholars refer to surviving Egyptian land surveys as landholdings, leaving ambiguous whether the surveys recorded

ownership as opposed to tenancy. The surveys clearly were compiled for tax purposes even if not all the land parcels paid tax at the same rate. Bowman referred to landowning and compared the concentration of ownership in fourth century Egypt with nineteenth century Britain, implying Roman Egyptian ownership rather than tenancy (Bowman, 1985; Bagnall, 1992).

While the forms of land tenure clearly were varied, we can attempt an abstract statement of Roman land tenure arrangements. Land was private or public, owned either by individuals or the emperor. Public land was leased, and tenants had the right to buy and sell leases. They paid taxes on their land, probably a share of their crop. Private land also could be bought and sold; most of it was leased, and tenants paid rent to the owners. Owners did not pay taxes, and it is reasonable to assume that rents on private land were similar to taxes on public land. There may also have been local taxes to support municipalities, and the incidence of these taxes is unknown. “By the third century, royal [Egyptian] land had become largely assimilated with private land, the one significant difference being a separate rate of taxation (Frier and Kehoe, 2007, 141).”

A new census of people and land was made at the end of the third century to provide a new basis for taxation. In Syria, one *iugera* of good land was considered equal to two of average land and three of poor land. Cropland was distinguished from vineyards as well. This was the most elaborate of land rankings, and there were many regional variations. While the census was extensive, there was little uniformity. Jones (1964, 64) observed that, “Under Diocletian the *annona*, the requisition in kind, seemed to have been assessed on land only, while the *capitatio*, the poll tax, was paid in money.” If so, the *annona* may have been sharecropping in practice.

These rules stayed in place for at least four centuries. During that period, the Roman Empire preserved peace around the Mediterranean basin and allowed the system of land ownership and taxation to continue. Starting in the fifth century, the ability of the Western Empire to preserve peace began to erode. Rome was sacked early in the fifth century, a traumatic event that led Augustine to write the *City of God* distinguishing belief in the Catholic Church from the defense of any earthly city. More important if less visible to most people living through it was the capture of Africa by the Vandals in 439. This loss deprived the central government of an important component of its tax base and made it impossible for the government to mount effective counter attacks against the various invaders of the Roman Empire. This clearly set up a cumulative process that led in a few decades to the demise of the Western Empire (Heather, 2005; Wickham, 2009).

What was the effect of this cataclysmic change on Roman property owners? I suggest that many landowners were unaffected as the decline of central authority began. Most of their activities were local, and local authorities continued to guide local economies. Invasions were sporadic and affected only swaths through the vast empire. Landowners in the path of the invaders must have experienced problems with their land ownership, but land owners in other areas probably carried on as they and their fathers had done before. Imported goods to any area became more rare and expensive as travel became more dangerous. “[A]cross the sixth and seventh centuries African goods are less and less visible in the northern Mediterranean; they vanish first from inland sites, and then from minor coastal centres (Wickham, 2009, 218).”

The process of Roman decline was not one of uniform decline that affected everyone alike. Instead it was a selective process that involved more and more people

over time. The spread of violence was sporadic and uneven. As more and more areas were affected, land ownership under Roman rules became more and more localized. Land ownership in the form described earlier was confined to Roman islands in a barbaric sea (with apologies to Pirenne, 1956). These islands shrank over time as the violence overspread the declining empire until most of them disappeared at some undetermined time (McCormick, 2001).

We see remnants of the Roman land system in an account of taxes due from tenants to the Abbey of St. Martin de Tours around 700 listing 1400 tenants and the modii of wheat, rye, barley, oats and spelt due (Gasnault, 1975, 95ff). There is more detail in a list of tenants of the Abbey of St. Germain-des-Prés a century later. There is a list of over 1500 farms with “at least” 10,000 residents. Almost all of these farms were “ingénuilles”, but some were “lidiles” and “serviles.” Most of islands of Roman land tenures must have clustered around abbeys, the most stable land-holders in Merovingian and Carolingian times (Longon, 1978, Tome I, 243).

The Eastern Empire did not collapse and only lost control of Egypt in 698. The Byzantine state remained strong and land taxation continued to provide a fiscal base to the state. “Indeed, payment of the [land] tax was itself proof of ownership. Since the early eighth century, perhaps earlier, the tax was estimated on the value of the land (Laiou and Morrisson, 2007, 50).” High-quality land was worth the most; second-quality land, less; and pasture, even less. The tax rate, which appears to have endured into the twelfth century, was about one quarter of cereal production. Although there appeared to be land consolidation later in this period, the tax rate remained level for land owners and

was higher only for the increasing proportion of tenant farmers (Laiou and Morrisson, 2007, 107).”

Agricultural production was divided between what can be called estates and village. Estates were the successors to Roman *latifundia*, and villages were composed of independent proprietors. The latter paid taxes to the state as in Roman times, and their tax rate was only half the dues paid by tenant farmers. This major difference was due partly to the protection offered by the estate and partly to services and capital provided by the lord of the estate. “[P]aroiikoi [tenants] were considered by Byzantine jurists as the heirs of the proto-Byzantine *coloni* (Lefort, 2002, 238).” Wage laborers were scarce, and labor services on estates were small to the extent we can judge. It looks as if Byzantine independent proprietors were the analog of what I have called Roman islands in the West. Since the state was stronger and more continuous in the East, these Roman remnants were a more important part of the rural landscape (Lefort, 2002).

The Byzantine system of land tenure was taken over by the Ottoman Empire and continued into modern times. In fact, the land tax in modern Israel is known as the *arnona*, a Hebrew term that goes back to the Talmud, where it denoted a tax on livestock and grain. It is most likely derived from the Latin word, *annona*, the Roman land tax to finance food distribution in the city of Rome.

In contrast, invasions of Western Europe multiplied and violence spread after the Western Empire collapsed, and the Roman organization of society broke down entirely. We know little about the terms of land tenure in the Carolingian period as the terms used disappeared in later centuries. Archaeology however has discovered some holdovers in early medieval fields of the Roman *centuriatio* (Verhulst 2002, 18-19).

After the Carolingians however came the Northmen and further disintegration of landholdings.

Marc Bloch (1961) described how feudalism gradually created order out of chaos, and I follow his lead in this discussion of land tenure. There was no land tenure in the period of chaos when you only had authority over a plot of land if you were physically present and could fight off other claimants. It was hard even to grow a crop in such a situation as there was no way to ensure you could reap the harvest from seeds you had sown. Population consequently was very small, declining sharply to the extent we know it after the western Roman Empire collapsed.

Travel was so hazardous that it was easier to bring people to food than food to people. “The nobleman with his entourage moved round constantly from one of his estates to another; and not only in order to supervise them more effectively. It was necessary for him to consume the produce on the spot, for to transport it to a common center would have been both inconvenient and expensive (Bloch, 1961, 63).” Land ownership was exceedingly tenuous.

This chaotic period when central authority disappeared was traumatic in European history. Shakespeare employed the memory of this period many centuries later to set the stage for the tragedy of King Lear, based on a twelfth century play. In the first scene Lear divides his kingdom between his two faithful daughters—as he sees them at the time—and adds, “Ourself, by monthly course, / With reservation of an hundred knights / By you to be sustain’d, shall our abode / Make with you by due turns.” In modern prose, the king says he will travel with a large armed escort from place to place to consume the local produce. The many knights were to protect him; the traveling was

to take him to the food instead of vice versa. It is extraordinary that in the well-ordered England of several centuries later that this memory of the hard times should be used as the entry to a searing play of morals.

There was no ownership of land in this situation, as control could not be exerted at a distance. There was instead possession by people on the land who could and would defend it. This kind of possession was called a fief, an adaption of the Carolingian Latin *feodum*. “By fief was meant a property granted not against an obligation to pay something ... but against an obligation to do something (Bloch, 1961, 167).” A fief lasted only as long as the person possessing the land gave service; it was not inherited. It was far different and less stable than land ownership or possession in Rome.

Wickham (2009) described this transition in great detail in his account of Europe from 400 to 1000. But while his account is rich in detail, the transition of land tenure arrangements is obscured by his language. Wickham wrote of a change from a society based on taxes to one based on ownership: “Tax was, that is to say, no longer the basis of the state. For kings as well as armies, landowning was the major source of wealth from now on.” He refers to this process as “the shift from taxation to landowning (Wickham, 2009, 103-04).” As I have discussed and Wickham acknowledged in his book, land taxation has to be based on land ownership or possession. There can be no taxation without some way of knowing who to tax. The decline of the Roman Empire led to a decline of both land taxes and land ownership. The growing chaos Wickham described precluded both activities. A better frame would have been to say that the society changed from one based on taxes to one based on personal service. What does it mean to own land if taxes on the land no longer sustain a government?

Feudalism was the way out of this chaos. It is best seen as a way to organize defense in a violent world. There was not enough security for a central government to collect taxes and field a military force, and all action had to be local. Subject to this constraint, it was natural for families and then close acquaintances to band together for their mutual defense. Adam Smith told us that labor specialization is limited by the extent of the market. Markets in these conditions were local and small, and the labor differential was limited to two classes of people, those who fought and those who farmed—knights and farmers.

A fief allowed a knight to fight for the defense of the farmers in the fief, but isolated knights were not much use against concerted attack. Feudalism was a way for knights to come together through lord and vassal arrangements that constructed a hierarchy of vassals under a lord who could field a group of knights. Vassals then used the resources of their fiefs to support their military activities, which were used in the service of their lords. The farming that underlay all this of course was done by the lords' villeins and other serfs. The lords in return for the vassals' support used their military resources to preserve the vassals' fiefs. Fiefs were retained as long as vassals fulfilled their part of the bargain, giving rise to elaborate rituals to assure lords that vassals would come forth when needed.

The feudal system succeeded in bringing more peaceful conditions to Western Europe, and problems changed from defending from invaders to defending against neighbors. There developed a small arms race in armaments for knights and their horses. The small economies of scale in this arms race accentuated the need to have substantial

fiefs for knights. Since there was no market for fiefs, the issue of size only came when a vassal's service ended and the fief reverted to the lord, typically when the vassal died.

The nonhereditary fief eventually was supplanted by a hereditary model as lords needed a reliable source from which to obtain vassals. The most convenient way to obtain future vassals was by making new acts of homage with the children of current vassals. Once this practice started, the converse situation where children of vassals were denied the fiefs of their fathers made it harder to add more vassals. Fiefs consequently took on a hereditary character as feudalism evolved, and eventually this characteristic of the fief became law in several regions of Europe. This heritable land could be sold, but the lord clearly had a large influence on who could buy it. "The medieval arrangement of property rights to land, with all kinds of overlapping claims and rights, served other needs than purely economic ones aimed at market exchange (Van Bavel, 2008, 16)."

Society thus was divided into two parts. Knights and clerics did not work and paid no taxes. Peasants worked and paid for the consumption of the upper class as well as their own, a division of society that lasted into the eighteenth century. A major problem for the new aristocracy was how to avoid the dissolution of their position by partible inheritance, which was widespread among Germanic cultures. And as fiefs became hereditary, some way needed to be found to keep them intact to preserve the size needed to support knights (Duby, 1974, 168-74; Hay and Rogers, 1982).

One way to preserve fiefs was for polities to adopt a rule of primogenitor, where only the oldest son inherited the fief. Another way was to entail a land holding, that is, to impose rules on the deed that limited inheritance to members of a family. A fee tail is a type of entail that fixed the rule of inheritance within a family and can be traced

to another land tenure mechanism known as the *maritagium*, when a grant was made by a woman's relative, usually the father, to her husband. This kind of grant served as the woman's inheritance, provided material support, and encouraged an alliance between the families through marriage. Under *maritagium* land could only be inherited by the woman's children and would revert back to the original donor in the case where there were no heirs.

There were many restrictions on land and land transfers as the need for service and the desire for inherited land got in each other's way. There must have been an evolution of these restrictions, but many different approaches appear to have been in use at the same time. This appearance may reflect the scarcity of historical evidence, but it more probably reflects a combination of regional differences in customs and uneven evolution even in local areas. Travel was difficult and transport was expensive; regions were far more isolated than in Roman times. "Regional differences were sharp, even between neighboring regions (Van Bavel, 2008, 14)."

An "unusually perfect feudal structure was imposed after the Norman Conquest. ... The whole social structure was based on landholding in return for service." Knight's service or other personal services known as grand sergeanty were the basis of land tenure, which was granted by the Crown. In addition to tenures, landed estates held by subjects of the king were held for life, in fee tail (inheritable by lineal descendants) or in fee simple (inheritable by heirs more broadly). Most agricultural labor was done by villain tenants (Megarry and Wade, 1975, 13-15, 24, 42).

Feoffment is the English term for the action of investing a person with a fief or fee, the two terms used for land possession in Medieval England. Normally, as noted

already, acquiring a fief or fee obligated an individual to render military service for a lord. Missing is any mention of land sales, taxes or prices. In addition, tenants, that is, villeins, had no bargaining power as they had no mobility; they were serfs. There are no court records of tenant appeals, as there was no central state to oppose the lords (Kaye, 2009). This is what it means to lack both a land and labor market.

Not all land was contained in fiefs or held in fee. Independent plots of land were known as allods, and they were of course at risk from lords and knights supported by fiefs. A recent survey of land ownership in the eleventh and twelfth centuries in the north of France revealed the presence of many small landowners that contrasted with the nearby holdings of the Count of Ponthieu. The allods lasted until the expansion of royal power in the late thirteenth century (Van der Beek, 2010a, b). We tend to know of their existence largely by records of their incorporation into fiefdoms, which creates a presumption that they were disappearing. As population increased in the increasingly peaceful feudal age, it became harder for allods to escape notice, and they were at increasing risk from armed lords and vassals.

The burden of rents and feudal dues on peasants has been calculated as about 40 percent of their production, although it varied quite a bit between manors (Allen, 2005, 36; Van der Beek, 2010a). This is higher than the commonly accepted levels of taxation in the Early Roman Empire, which hover around ten percent of production. If these estimates are even approximately accurate, then one of two things must have happened in the first millennium. Either farming must have become vastly more efficient, or the after-tax income of farmers must have shrunk dramatically. The latter choice appears more likely at our current state of knowledge.

Feudal warfare relied upon direct hand-to-hand combat, which established the knight as the primary military unit. Over time, military armies employed greater use of archers, which provided key advantages over knights in battle, and the knight as a military unit decreased in importance and gradually disappeared. With the introduction of firepower, archers made way for musketeers who used muskets as a means of offense. Although early firearms were less accurate and efficient than the bow and arrow, continual technological improvements in guns eventually rendered archers obsolete. Considering that it usually took many years of training to make an archer, while only days were required to train and field a musketeer, it became more efficient to employ musketeers as a military unit. The lower costs and faster production associated with training and fielding musketeers allowed for significant increases in army sizes.

In economic terms, the process was determined by economies of scale. In the feudal age, when chaos was the issue, there were economies of scale for individual fighters, that is, knights. There were few economies of scale after this limited scope. As security increased and warfare changed, archers and musketeers provided economies of scale that extended to larger numbers of soldiers. Economies of scale near the origin were reduced as archers and then musketeers needed less equipment and training than knights, while economies of scale for groups of soldiers increased as the power of firing in volleys became apparent. The new economies of scale came more from military organization than individual training. The new system was clear enough to be described clearly around 1600. “Maurice of Nassau and Gustavus Adolphus developed a system of organization, tactics, and drill that harked back to the Roman legions (Boot, 2006, 103).” The economics of warfare had come full circle.

Land tenures had been advancing as military technology improved, at least in the most urbanized parts of Europe in northern Italy and the Low Countries. Land sales by peasants are recorded as early as the eighth and ninth centuries when northern Europe was in chaos. The clarification of property rights and the introduction of civil courts stimulated land markets in the later twelfth century. The Low Countries caught up by the fourteenth century when voluntary registration of private land transfers by public courts became common. Although these two regions developed differently, the growth of private land ownership and transfer increased in both during the Medieval period (Van Bavel, 2011).

Tilly (1990) argued that coercive exploitation played an important role in the creation of European nation-states. He used the concept of a protection racket to describe European developments into state-making, where a strong individual or group forces weaker individuals to pay tribute in some form in exchange for protection or avoidance of damage. Tilly argued that states achieved a monopoly of violence and carried out varied activities of organized violence: making war, creating states, protection, and extraction of resources through taxes.

Independent lords became like allods in the feudal era; they could not defend themselves from the new states and were subject to capture or submission. Lords stopped being vassals and turned into landowners. The land that they owned however had the restrictions that had been imposed when the land had been a fief, when fee tails had evolved into entails. These impediments to market activity were retained by the aristocracy to preserve the integrity of the family estate. Lord Peter Wimsey is a fictional

character of the early twentieth century, but his role as the landless younger son of the mythical Duke of Denver was a staple of British aristocracy for many centuries.

This restricted survey of European history brings us to the present. Some land is still entailed or subject to other restrictions, and the way to indicate that there are no such restrictions on a property is to hold them in fee simple. That term means that they are remnants of fiefs but lack all the obligations that made fiefs what they were. This curious way of designating land that can be bought and sold freely like many other marketable assets is the product of the a millennium of European history and expresses our freedom from the constraints of feudal forms of land tenure.

The familiarity of more recent history makes it hard to understand the terms of land ownership in antiquity. We are used to a monotonic history, typically starting from the agricultural revolution and continuing through the industrial revolution. But the modern history of land tenure comes from the violence that followed the end of the Roman Empire; it says nothing about the conditions that obtained while the Roman Empire was intact. It is hard to visualize a modern type of land holding in the ancient world, but the evidence suggests that the intervening impediments to land usage and sale are not relevant to the history of ancient Rome. Land, then as now, typically was held in fee simple.

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