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PRODUCTIVE INVESTMENTS IN AGRICULTURE:
INSTRUMENTUM FUNDI AND PECULIUM
IN THE LATER ROMAN REPUBLIC*

Upper-class Romans were notoriously conservative in their approach to managing and investing their wealth. Looking for a steady, rather than maximized, income in order to maintain their social standing over time, they were in the habit of keeping most of their economic assets in landowning, both in Italy and, eventually, in the provinces. Through the employment of proxies (tenants or agents, free or slaves), they tended to stay as little involved as possible in the constraints of productive activities. Profits could be reinvested at times in more risky ventures, such as commerce or money-lending, but such strategies should not be advertised. Loans were mostly made out for consumption, not as a form of investment in productive activities. Such assumptions are widely regarded as reflecting the ideological discourse of Latin agricultural writers, the reasoning behind the opinions of classical jurists, and actual practices recorded in the personal writings of individual landowners, such as Cicero or Pliny the Younger.

In this paper, I would like to suggest that upper-class Romans of the late Republican period may have been more keen on investing capital in business activities than has been recognized so far, and for that matter had developed strategies that can be reconstructed in their broad outline thanks to the legal sources. Such strategies rest on the creation, development, and use of legal institutions, the history of which can be traced back to the late Republican period. These institutions are closely connected with, but not limited to, the dominant economic sector of the time: agriculture. They were the topics of debate among jurists in both preclassical and classical periods. Some aspects of this debate still lurk in the excerpts collected in Justinian's *Digest*. Because of the nature of this compilation, which includes material from different periods, mostly classical (first to mid-third century AD), and which aims to provide a coherent presentation of legal institutions in use over a long period of time, it is difficult to reconstruct what

these institutions actually looked like at any given time and place in the preclassical period. But several citations give us a glimpse of some of the issues which late-Republican jurists were concerned with.

The preclassical jurists whose opinions are relevant for the issues discussed in this paper are, in chronological order:¹

- Q. Mucius Scaevola (died in 82 BC), *pontifex maximus* and consul in 95, author of the first commentary on civil law and of a book of legal definitions (*horoi*);
- Cornelius Maximus, who was active in the first half of the first century BC and about whom little else is known;
- C. Trebatius Testa (died after AD 4), from Lucania, Cornelius' student, Cicero's friend, Caesar's and Augustus' protégé, and Antistius Labeo's teacher;
- A. Cascellius, attested as senator as early as 73 BC and still active at the time of the second triumvirate and in the early Principate;
- Servius Sulpicius Rufus (ca. 105-43 BC), praetor in 63, consul in 51, Cicero's friend, author of, among other works, a commentary on the praetor's edict;
- Alfenus Varus, from Cremona, suffect consul in 39 BC, Servius' student, and author of *digesta*;
- A. Ofilius, Caesar's partisan, Servius' student, Ateius Capito's teacher, and author of a commentary on the praetor's edict and of a treatise on legal remedies (*actiones*); and
- Q. Aelius Tubero, Ofilius' student, author of works on judges and on senatorial decrees (*senatusconsulta*).

These jurists were held in high esteem by later authors, who quoted their opinions, sometimes at second hand, even though they were issued in a different context and presumably fitted social and economic conditions in first-century BC Italy. In this regard, these preclassical legal sources can be set against the writings of Latin agricultural writers, such as Cato's *De Agricultura* (written in ca. 160 BC) and Varro's *Res Rusticae* (third quarter of the first century BC), and the material evidence collected in recent archaeological studies on the villa economy and slavery.²

The main contention of this paper is that by the beginning of the Principate, and possibly much earlier, Italian landowners were in the habit of investing significant financial assets into agricultural production, in two ways: through the equipment of agricultural units, to be kept under direct management or leased out to tenant-farmers, and through the endowment of dependents set in charge of parts of their estates, as overseers or slave tenants. Both strategies are discussed in a

¹ Wieacker 1988, 595-617, with useful *stemmata auditorum* (615).

² Marzano 2007, on villas in central Italy; Thompson 2003, 67-89 on slavery.

famous text excerpted from the second book of Alfenus' *digesta*, which will serve as my starting point:³

Quidam fundum colendum servo suo locavit et boves ei dederat. Cum hi boves non essent idonei, iusserat eos venire et his nummis qui recepti essent alios reparari. Servus boves vendiderat, alios redemerat, nummos venditori non solverat, postea conturbaverat. Qui boves vendiderat nummos a domino petebat actione de peculio aut quod in rem domini versum esset, cum boves pro quibus pecunia peteretur penes dominum essent. Respondit non videri peculii quicquam esse, nisi si quid deducto eo, quod servus domino debuisset, reliquum fieret; illud sibi videri boves quidem in rem domini versos esse, sed pro ea re solvisse tantum, quanti priores boves venissent: si quo amplioris pecuniae posteriores boves essent, eius oportere dominum condemnari.

The case recorded by Alfenus involves four people:

1. The landowner/slaveowner (*quidam, dominus*) who has “let out” (*locavit*) his estate to his slave, and had provided him with oxen, subsequently authorizing him to sell them and buy others;

2. The slave (*servus*) who was employed as slave tenant (*servus quasi colonus*), in which capacity he was supposed to cultivate the estate, presumably under the same general conditions as any other free tenant, namely against the payment of a rent (usually in cash, occasionally in kind) and the performance of other obligations pertaining to the maintenance of the estate and its ability to yield a profit;

3. The (*implicit*) buyer (*emptor*) of the first set of oxen, who had paid the amount of money on which the slave later defaulted; and

4. The seller (*venditor*) of the second set of oxen, who had been cheated out of the price of his sale as a result of the slave's bankruptcy, and who, in suing the owner of the slave, was presented with the choice between – at least – two distinct legal remedies (*actiones*).

The first issue to be addressed concerns the first set of oxen. Alfenus specifies

³ Alfenus (2 dig.) Dig. 15, 3, 16: «Someone rented out an estate to his slave to be cultivated and had granted him oxen. As these oxen were not adequate, he had given orders to sell them and to acquire others with the proceeds. The slave had sold the oxen, bought others, failed to pay the seller, and thereafter gone bankrupt. The seller of the oxen was claiming the money from the master with an action on the *peculium* or on the enrichment of the master's patrimony, since the oxen for which the money was being claimed were under the control of the master. He (*scil.* Servius) responded that nothing seemed to be part of the *peculium*, unless something would be left over after deduction of what the slave had owed his master; that it seemed to him (*scil.* Servius) that the oxen had been entered into the master's patrimony, but that he (*scil.* the master) had paid on this account only (an amount equivalent to) the proceeds of the sale of the former oxen; that if the latter oxen had been bought at a higher price, the master ought to be condemned for the difference.» Cf., among others, Watson 1965, 185-188; Giliberti 1981, 29-51; and Schiavone 2005, 222-225, with bibliography 448 n.5. Translations are mine unless mentioned otherwise.

that oxen – and we do not know how many there were and for which specific purpose they had been granted – had been given (pluperfect *dederat*) to, or imposed on,⁴ the slave, possibly, but not necessarily, as *peculium*, again possibly, but not necessarily, before the slave was established (perfect *locavit*) as a slave-tenant on the estate. (Note the tense difference, which may not be relevant in view of the use of the pluperfect in the rest of the text). An alternative suggestion would be that the oxen had been given in the aftermath, and as a consequence, of establishing the slave as “tenant”. The oxen should then be considered either part of the equipment of the estate (*instrumentum fundi*) or part of the slave’s *peculium*. It is important to stress that either solution is legally acceptable, but mutually exclusive, and has strong legal implications for the question at stake.⁵ It should be noted however that the same Alfenus, quoted by Ulpian, reportedly thought, against the unanimous opinion of earlier and later jurists, that living beings (*animalia*) were not part of the farm equipment:⁶

Alfenus autem, si quosdam ex hominibus aliis legaverit, ceteros, qui in fundo fuerunt, non contineri instrumento ait, quia nihil animalis instrumenti esse opinabatur: quod non est verum: constat enim eos, qui agri gratia ibi sunt, instrumento contineri.

In this text, Alfenus is obviously concerned with the condition of agricultural slaves (*homines*), but relies on a more general principle to reach his conclusion: *nihil animalis instrumenti esse*, which evidently reflects the position of some jurists regarding the nature of farm equipment. This position may have been dominant in the late Republican period, but was no longer acceptable in the classical period. As the next excerpts suggest, the Augustan jurist Labeo already anticipated Ulpian’s later dissenting opinion, excluding slave tenants (*servi quasi coloni*) and foresters (*saltuarii*) – though only in specific circumstances – from the farm equipment.⁷ The debate was on and opinions were shifting.

To return to the case presented by Alfenus in *Dig.* 15, 3, 16, it provides evidence that by the second half of the first century BC, slaves were able to alienate and acquire a *res mancipi* (such as oxen), assumedly through formal conveyance (*mancipatio*) or through *traditio ex iusta causa*. *Usucapio* could be envisaged for the first transaction (namely, the sale of the first set of oxen by the slave), but would

⁴ M. Crawford’s suggestion at the conference.

⁵ I disagree with Watson 1965, 186, following S. Solazzi, who considers that no commercial relationship between master and slave can exist without the grant of a *peculium*.

⁶ Ulp. (20 *ad Sabinum*) *Dig.* 33, 7, 12, 2: «Alfenus says that if he has bequeathed some slaves among others, all those who had been on the estate are not included in the equipment, because he thought that no living being belongs to the equipment, which is untrue, for it is established that those who are there for the sake of the land are part of the equipment.»

⁷ Ulp. (20 *ad Sab.*) *Dig.* 33, 7, 12, 3-4, citing Labeo, Neratius, and Pegasus.

be unlikely for the second one (the credit purchase of the second set of oxen by the slave) because of the time factor between the delivery of the oxen and the transfer of ownership, technically after one year of uninterrupted possession for movable property, including livestock.⁸ Whether it was a novelty then is hard to assess. It was certainly the result of a natural trend, because there is no doubt that informal transactions had been carried out by slaves for decades or even centuries.⁹ In the late Republican period, slaves were important economic actors, and the law, through the praetor's edict, could accommodate them in a system that initially was alien to them.

While the validity of the first transaction is not questioned, the whereabouts of the proceeds of the sale is not so clear. From Alfenus' report, it can be assumed that it was transferred into the slave's *peculium*, provided he had one. Otherwise, the money would have been transferred to his owner's account (*res familiaris*), in the form of what the jurists called an *in rem versum* ("enrichment").¹⁰

As for the second transaction, there is no reason to think that the oxen had not been validly transferred either into the slave's *peculium*, again provided he had one, or into his owner's patrimony, for instance, but not necessarily, into the *instrumentum fundi*. The lack of payment for the purchase of the second set of oxen creates a debt toward the seller, and entitles him to a rightful claim. Alfenus reports that the seller-now-turned-plaintiff was considering two different legal remedies: a) the action on the slave's *peculium* or b) the action on the master's enrichment (*in rem versum*). Both remedies belong to the larger category of the so-called *actiones adiecticiae qualitatis*, devised by one or several praetors sometimes in the mid- or late-Republican period to regulate the law of agency. Both remedies enforce the limited (*dumtaxat*) – as opposed to unlimited (*in solidum*) – liability of the slaveowner for the obligations incurred by his dependent. In the present case, the claim consists in a debt to the amount of the price of the oxen bought from the yet unpaid seller. Technically, the owner is enriched by the fact that he owns, through his slave, both the proceeds of the first transaction and the object (oxen) of the second one. Since the slave had assumedly lost the proceeds of the first transaction in the bankruptcy, the master's enrichment was tantamount to nothing, unless the price of the second set of oxen is higher than the proceeds of the first transaction.

We do not know which remedy the plaintiff eventually chose to resort to, but we are told what Servius Sulpicius Rufus, Alfenus' teacher, thought of the case:

– First, the slave's *peculium* is reputed empty, possibly as a result of the slave's

⁸ Kaser 1971, 135 and 286.

⁹ Cf. the evidence collected by Dumont 1987, esp. 368-371.

¹⁰ Discussed at length throughout the same title *Dig.* 15, 3 (*de in rem verso*). Cf. Chiusi 2001.

bankruptcy, unless the existence of a residue (*reliquum*) can be shown, after due deduction of whatever the slave owed his master on the basis of previous, fictitious transactions between them (*obligatio naturalis*). Checking the value of the *peculium* at a given time – probably at the time of litigation – was not so easy as it may sound:¹¹ it required an independent audit of both the owner’s and the slave’s accounts (*rationes*), and a complete inventory of the *instrumentum fundi*. In the case of a *servus quasi colonus*, the land (*ager/fundus*) “leased out” to the slave and its equipment (*instrumentum fundi*) were usually not part of the *peculium*, nor was the slave tenant part of the *instrumentum fundi*.¹² Thus *peculium* and *instrumentum fundi* were two distinct entities, although it may not have been easy for third parties, litigants and judges, to identify what belonged to each entity. In addition, different arrangements between master and slave were possible.

- Second, the master’s possible enrichment is equal to the difference between the proceeds of the sale of the first set of oxen and the agreed-upon price for the second set of oxen. As the replacement of the first set of oxen was justified because of their so-called “inadequacy”, it is reasonable to assume that the second set’s (expected) improved adequacy translated into a higher price. The difference in price (and actual value) may have been significant, but no figure is available. Again, the seller would have to know about the first transaction and the selling price in order to establish the existence of the master’s possible enrichment.

It is remarkable that both remedies considered by the plaintiff and discussed by the jurist(s) entailed only the owner’s limited liability, whereas two other remedies among the *actiones adiecticiae qualitatis* could have been brought to sue the owner for the whole debt (*in solidum*): the *actio quod iussu* and the *actio institoria*. In either case it can be argued that Alfenus and Servius were discussing this particular case to illustrate some aspects of the *actio de in rem verso* – as its inclusion in Title 15.3 suggests – as an alternative for the *actio de peculio*, discarding for the sake of example what would have been the obvious solution in the praetor’s court. However, the *actio quod iussu* and the *actio institoria* may also have been ignored as they did not apply to such a case, on the one hand because the *iussus* was given to the slave and not to the third party, on the other hand because a *servus quasi colonus* was not appointed on the basis of a *praepositio*,

¹¹ Johnston 2002.

¹² As suggested by Cervidius Scaevola (3 resp.) Dig. 33, 7, 20, 1: *Quaesitum est, an Stichus servus, qui praedium unum ex his coluit et reliquatus est amplam summam, ex causa fideicommissi Seio debeat. Respondit, si non fide dominica, sed mercede, ut extranei coloni solent, fundum coluisset, non debere*. I thank Prof. Bruce W. Frier for clarifying this point for me. I shall return to it below.

unlike *vilici* and *actores*. For reasons explained elsewhere, I rule out the hypothesis that either or both actions had not yet been created in Alfenus' time, in the third quarter of the first century BC.¹³

Be that as it may, we have here a legal situation pregnant with structural opportunities at the economic and social levels. I will focus on two specific aspects: first, the capital investment by a *landowner* in agricultural production, with the increasingly restrictive definition of the so-called *fundus*, a somewhat typical managerial, administrative, or economic unit centered on a piece of land, duly equipped for viable exploitation, and reflecting the organization of labor and sectoring of the production; second, the capital investment by a *slaveowner* through the grant of a separate account enabling a dependent – deprived of legal capacity and property rights as a consequence of his status – to enjoy a near-absolute economic independence in conducting business while making valid transactions backed with his master's credit.¹⁴ The first aspect can be approached through the study of the Roman law of succession governing legacies,¹⁵ the second through the study of the Roman law of obligations governing indirect agency.¹⁶ This material has been used in recent studies on agricultural history¹⁷ and business and trade.¹⁸ In what follows, I would like to point out how complex, intense, and sometimes marginal the juristic controversies already were in the late Republican period – in comparison with the obviously better-documented classical period of Roman law. I will also try to suggest that preclassical jurists had a sophisticated understanding of the consequences, both positive and negative, of the legal system they had contributed to develop. Finally, I hope to demonstrate that the agronomists had some experience of these consequences and reacted to them, at least rhetorically.

¹³ Aubert 1994 and 2007.

¹⁴ Johnston 1995, 1522-1524, acutely points out that “functional limits” (*causa peculii, utilitas peculii*) are combined with financial ones regarding the principal's liability for transactions performed by slaves (though not sons) with *peculium*; cf. Ulp. (29 *ad ed.*) *Dig.* 15, 3, 5-6 (citing Celsus and Iulianus) and 9 (citing Sabinus and Cassius); Iulianus (4 *ex Minicio*) *Dig.* 46, 1, 19; Papinian (8 *quaest.*) *Dig.* 46, 3, 94, 3 (in response to a written question from Fabius Ianuarius); Gaius (1 *ad ed. prov.*) *Dig.* 2, 14, 30, 1 (citing Iulianus); and Paul (4 *ad Plaut.*) *Dig.* 15, 1, 47 *pr.*-1 (citing Sabinus). Whether this applies to the Republican period is unknown.

¹⁵ *Dig.* 32 and 33, mostly 33, 7.

¹⁶ *Dig.* 14 and 15, mostly 15, 1 and 2.

¹⁷ Steinwenter 1942; Ligios 1996; Capogrossi Colognesi 1996; de Ligt 1999; and Kehoe 1997 and 2007.

¹⁸ Andreau 1999, 64-70, and 2004.

*Instrumentum fundi*¹⁹

Let us start with the first type of capital investment, which defined the size, structure, and organization of an economic/managerial unit. The Roman law of legacy addresses, among other things, the specific and crucial issue of what preclassical and classical jurists assumed to be included in the equipment of an agricultural estate (*fundus cum instrumento*), according to three criteria: *utilitas*, *destinatio*, and, possibly later, *mos regionis* (namely, what is necessary for the estate to be productive; what is intended by the owner to be of use in the standard activities of the estate; and what is required by the specific conditions of the estate and/or area where it is located, including local expectations).

The *instrumentum fundi* is described at length by the agronomists, who have in mind a very specific type of agricultural production, the so-called Catonian villa or its updated version presented by Varro and Columella. Varro (*R.R.* 1, 17, 1) makes a distinction between manpower (*instrumentum vocale*), livestock (*instrumentum semivocale*), and tools and utensils (*instrumentum mutuuum*). Even though it has been recently contended that landowners had a tendency to leave it to tenants to provide for most of the farm equipment,²⁰ it seems to me that the law of legacy suggests otherwise.²¹ Heavy equipment, such as wine- and oil-presses, is almost certainly provided by the landowner, and this may be true to some extent about the personnel and material used in the production. Otherwise, the bequest of a *fundus cum instrumento*, described at great length by the jurists, would have called for the transfer by the heir to the legatee of movable property belonging to the tenant, and the need for the heir to compensate the tenant, a time-consuming, technically demanding, potentially expensive, and, in the end, futile process.

It is noteworthy that the jurists, whether they dealt with specific cases or discussed general issues, seem to have had strong feelings about what should be viewed as part of the *instrumentum fundi*. In this regard, since the jurists are more likely to reflect the concerns of the upper end of the social ladder, their decisions and the criteria on which they rely point towards a system in which economic/managerial units such as *fundi* were under direct management by the owner or his agents (*vilici* and *actores*),²² or dependent tenants (*servi quasi coloni*).²³

¹⁹ Steinwenter 1942; Watson 1971, 142-154; Ligios 1996, with the review by Capogrossi Colognesi 2000; and Kehoe 1997, 113-123.

²⁰ Kehoe 1988, 1992, and 1997.

²¹ So does Cato when listing various *instrumenta* (*agr.* 10-13), providing the best addresses for shopping (*agr.* 22 and 135), and discussing terms of contracts for outsourcing (*agr.* 14-16 and 146, 3).

²² Aubert 1994; Carlsen 1995.

²³ Giliberti 1981, with B. Frier's review in *ZRG*, 100 (1983), 667-676; Veyne 1981; Foxhall 1990; and Kehoe 1997, 166-173.

The earliest legal evidence dealing with the issue of *instrumentum fundi* is actually preserved in a different title of the *Digest*. Q. Mucius Scaevola, quoted by the Severan jurist Ulpian, shows awareness of the accidental and temporary presence of a skilled worker, here a groom, on the farmstead:²⁴

(...) Ut est apud Mucium relatam, cum fundus erat legatus vel cum instrumento vel cum his quae ibi sunt: agasonem enim missum in villam a patre familias non pertinere ad fundi legatum Mucius ait, quia non idcirco illo erat missus, ut ibi esset (...).

The text is evidence for the mobility of labor, workers being temporarily dispatched to outside locations for specific purposes. Any inventory of personnel and equipment attached to an estate had to account for such a phenomenon. Like Mucius in this text, Cornelius Maximus and Servius all supported the idea that the owner's – reconstructed or assumed – intention or conception weighed heavily in deciding about the nature or composition of the *instrumentum*:²⁵

Villae instrumento legato supellectilem non contineri verius est. 1. Vineae et instrumento eius legato instrumentum vineae nihil esse Servius respondit: qui eum consulebat, Cornelium respondisse aiebat palos perticas rastros ligones instrumenti vineae esse, quod verius est.

Servius and Cornelius Maximus, both quoted by Alfenus, separate what belongs to a vineyard from what belongs to the agricultural estate, as if the vineyard had some economic or administrative autonomy with respect to the agricultural unit. The same text shows Servius, still quoted by Alfenus, discussing the legacy of female woolmakers:²⁶

Quidam uxori fundum, uti instructus esset, in quo ipse habitabat, legavit. Consultus de mulieribus lanificis an instrumento continerentur, respondit non

²⁴ Ulpian (4 *disputationum*) *Dig.* 28, 5, 35, 3: «As it is reported by Mucius, when an estate has been bequeathed either with its equipment or with those present there: for Mucius says that a groom sent to the villa by the head of the family does not belong to the bequeathed estate, because he had not been sent there for the purpose of staying there. It is, excerpted from a title dealing with the institution of an heir.»

²⁵ Cornelius and Servius in Alfenus (2 *Dig. a Paulo epitomatorum*) *Dig.* 33, 7, 16 *pr.*-1: «It is true enough that utensils (*supellex*) are not included in the bequeathed equipment of the villa. 1. As a vineyard had been bequeathed with its equipment, Servius replied that a vineyard had no equipment. He said that he was putting the question to Cornelius, who responded that stakes, poles, hoes, and mattocks were part of the equipment of a vineyard, which is more akin to the truth.»

²⁶ *Ibid.* 2: «Someone left his wife an estate, fully equipped, on which he was living himself. Asked whether the female woolmakers were included in the equipment, he (*scil.* Servius) responded that they were not, but since the head of the family himself, the testator, had been living on this estate, it should not be doubted that all the servants and other things with which the head of the family had equipped this estate were regarded as part of the legacy.»

quidem esse instrumenti fundi, sed quoniam ipse pater familias, qui legasset, in eo fundo habitasset, dubitari non oportere, quin et ancillae et ceterae res, quibus pater familias in eo fundo esset instructus, omnes legatae viderentur.

Thus, theoretical principles can be superseded by *de facto*, practical considerations. This allows Servius to explore – and to introduce us to – the notion of *instrumentum instrumenti*, pertaining to the logistical support of the staff engaged in agricultural production:²⁷

Sed an instrumenti instrumentum legato instrumento continetur, quaeritur: haec enim, quae rusticorum causa parantur, lanificae et lanae [et] tonsores et fullones et focariae non agri sunt instrumentum, sed instrumenti. Puto igitur etiam focarium (sic) contineri, sed et lanificas et ceteros, qui supra enumerati sunt; et ita Servium respondisse auditores eius referunt.

Servius' view, accepted by Ulpian, was all-encompassing, including even the food earmarked for the hands in the *instrumentum*:²⁸

(...) Sed ego puto et frumentum et vinum ad cibaria paratum instrumento contineri: et ita Servium respondisse auditores eius referunt (...).

Trebatius widens the concept of *instrumentum fundi* by including any member of the staff involved in maintenance or logistical support, feeding, clothing, housing – to which one should add transporting, and caring for – the hands employed on the estate in agricultural production, as well as processing the products.²⁹ This possibly reflects a trend toward larger, vertically integrated economic units, although the sharing of resources by two (or more) units is also envisaged, pitching Trebatius and Labeo against Cascellius about the criterion defining which unit should account for every single item:³⁰

²⁷ Servius in Ulpian (20 *ad Sabinum*) *Dig.* 33, 7, 12, 6: «One wonders whether the supporting equipment is included in the legacy of the equipment. Those (people and things) who are at hand for the sake of agricultural workers, such as woolmakers, wool-shearers, fullers, and cooks are not farm equipment, but belong to it. As for me (*scil.* Ulpian), I think that even the cook is included, as well as the woolmakers and all the others mentioned above. This is what Servius replied according to his pupils.»

²⁸ Servius in Ulpian (20 *ad Sabinum*) *Dig.* 33, 7, 12 *pr.*: «But I (*scil.* Ulpian) consider that wheat and wine prepared for rations are comprised within the equipment. This is what Servius replied according to his pupils.»

²⁹ Trebatius in Ulpian (20 *ad Sabinum*) *Dig.* 33, 7, 12, 5: *Trebatius amplius etiam pistorem et tonsorem, qui familiae rusticae causa parati sunt, putat contineri, item fabrum, qui villae reficiendae causa paratus sit, et mulieres quae panem coquant quaeque villam servant: item molitores, si ad usum rusticum parati sunt: item focariam et vilicam, si modo aliquo officio virum adiuvet: item lanificas quae familiam rusticam vestiunt, et quae pulmentaria rusticis coquant.* Roth 2007, 6 n.14 unnecessarily considers the mention of the *vilica* as a later gloss.

³⁰ Trebatius, Cascellius, and Labeo in Iavolenus (2 *ex posterioribus Labeonis*) *Dig.* 33, 7, 4: «As someone owned two adjacent estates, with oxen returning from one to the other after work, he had

Cum quidam duos fundos iunctos haberet et ex altero boves, cum opus fecissent, in alterum reverterentur, utrumque fundum cum instrumento legaverat. Labeo Trebatius boves ei fundo cessuros putant, ubi opus fecissent, non ubi manere consuevissent: Cascellius contra. Labeonis sententiam probo.

The case may just imply that one estate did not have the facilities to keep draft animals. What matters, from a legal point of view, is where the resources are normally used, since the removal of such resources would jeopardize the efficiency and viability of the economic unit.

Resources could be used jointly in two geographically connected, but administratively separate sectors (e.g., agricultural and industrial):³¹

Quidam cum in fundo figlinas haberet, figulorum opera maiore parte anni ad opus rusticum utebatur, deinde eius fundi instrumentum legaverat. Labeo Trebatius non videri figulos in instrumento fundi esse.

Along the same line, Iavolenus considered that the exception of livestock from the equipment included shepherds and sheep, *pace* Ofilius who had it the other way around.³² The question lies not so much in whether the villa economy had room for pastoralism and cattle breeding, which was evidently the case in all periods, but how closely integrated this sector of the production was within the overall production of the economic unit. Ofilius' reasoning was that shepherds and sheep were vital to agricultural production, whereas rearing on a different scale was a separate activity. Things get even more complicated in a controversy pitching Labeo against Tubero:³³

Fundi instrumento legato id pecus cedere putabat Tubero, quod is fundus sustinere potuisset; Labeo contra. Quid enim fiet, inquit, si, cum mille oves fundus

bequeathed both estates with their (respective) equipment. Labeo and Trebatius considered that the oxen were to go with the estate on which they had worked, not where they had been stabled. Cascellius differed. I (*scil.* Iavolenus) side with Labeo.» Iavolenus is a jurist of the early Antonine period.

³¹ Trebatius and Labeo in Iavolenus (2 *ex posterioribus Labeonis*) *Dig.* 33, 7, 25, 1: «As someone had clay pits on his estate, potters were put to work for most of the year in the fields. Then, he had bequeathed the estate with its equipment. Labeo and Trebatius thought that the potters were not part of the equipment.»

³² Ofilius in Iavolenus (2 *ex posterioribus Labeonis*) *Dig.* 33, 7, 25, 2: *Item cum instrumentum omne legatum esset excepto pecore, pastores oviliones ovilia quoque legato contineri Ofilius non recte putat.*

³³ Tubero and Labeo in Iavolenus (2 *ex posterioribus Labeonis*) *Dig.* 33, 7, 25 *pr.*: «In the legacy of farm equipment, Tubero thought that it included only as much livestock as the estate could have sustained. Labeo differed. What will happen, he said, if 2,000 sheep had been kept on an estate that could have sustained only 1,000? Which sheep will we have to count as part of the legacy? One should not wonder how many sheep should have been kept for the sake of the farm equipment, but how many had been kept; for this should not be estimated from the number or the quantity that has been bequeathed. I (*scil.* Iavolenus) concur with Labeo's opinion.»

sustinere potuisset, duo milia ovium in eo fundo fuerint? Quas oves potissimum legato cessuras existimabimus? Nec quarendum esse, quid debuisset parari pecoris instrumenti fundi causa, sed quid paratum esset: non enim ex numero aut multitudine legata aestimandum esse. Labeonis sententiam probō.

My understanding of Labeo's position is that the issue was a matter of principle, not proportion. In any case, transhumance and the use of public land for grazing made the ratio between estate and livestock irrelevant.³⁴ Besides, fodder could be bought on the market to meet the needs.

These texts on the legacy of farm equipment suggest that capital investment in agriculture was far from insignificant: tools, material, livestock, and personnel are legally attached to a managerial unit, the productive capacity of which was protected from disruption in case of transfer of property, at least according to the Roman law of succession.³⁵ In the case of estates under direct management, landowners were expected to invest heavily in capital, tools, livestock, and slave manpower, including hands, skilled workers, and managers. It cannot be emphasized enough how crucial this last form of investment was, because agriculture was a tricky, sensitive, and often fragile economic activity requiring wide-ranging skills – including management of human and animal resources, water, and land in unpredictable weather conditions, crop processing and marketing – and relentless energy and entrepreneurship.³⁶ There is no question that low- and mid-level management was a top priority of landowners whose financial credit rested on landed property and agricultural income. In this respect, Labeo points to a fundamental difference between slave estate managers acting as agents or as tenants;³⁷

Quaeritur, an servus, qui quasi colonus in agro erat, instrumento legato contineatur. Et Labeo et Pegasus recte negaverunt, quia non pro instrumento in fundo, etiamsi solitus fuerat et familiae imperare.

Anticipating the opinion of later jurists, Labeo may be implicitly contrasting slave tenants (*servi quasi coloni*), who pay rent (*merces*) in exchange for the right

³⁴ Crop rotation and fallowing seem to be unheard of in the Republican period.

³⁵ Kehoe 1997, 123 states that «the estate was envisioned not as an enterprise with assets and liabilities but only as a physical entity geared toward the production of a crop.» I do not agree with his reading (119-123) of the evidence (Scaev. [3 *resp.*] *Dig.* 33, 7, 20, 3; Papinian [7 *resp.*] *Dig.* 32, 91 *pr.*, etc.), but since it is dated later than the period under consideration in this paper, it does not have to be discussed here.

³⁶ Aubert 1994; Carlsen 1995 and 2001; Schäfer 2001.

³⁷ Labeo and Pegasus in Ulpian (20 *ad Sabinum*) *Dig.* 33, 7, 12, 3: «One asks whether a slave who is in the field as a tenant is part of the bequeathed equipment. Labeo and Pegasus rightly denied it, because the slave was not on the estate as equipment, even though he had been in the habit of commanding the staff.»

to exploit the estate, with slave managers (*vilici*), who act on behalf of their master, as an extension of their juristic personality (*fides dominica*).³⁸ Unlike *vilici* who are part of the equipment, slave tenants are distinct from it. Any slave may have personal belongings, known as a *peculium*, merged with the equipment in the case of *vilici*, and to be regarded as separate in the case of *servi quasi coloni*. Conversely, insofar as the legacy of the farm equipment did not include the slave, it was unlikely to have been part of the slave's *peculium*. Therefore, slave tenants used the farm equipment with the understanding that it was and remained their master's property, to be accounted for separately from the *peculium* they may or may not have been endowed with.

*Peculium*³⁹

In Alfenus' text (*Dig.* 15, 3, 16), the slave tenant probably enjoyed a *peculium* allowing him to conduct business while providing some guarantees to people who entered into legal transactions with him in spite of his servile status. In this specific case, we do not know what his *peculium* was made of, but the classical jurists tell us that a *peculium* could consist of anything, movable or immovable, including slaves (*vicarii*) and their own *peculium*, and even credit notes (*nomina debitorum*).⁴⁰ There is no reason to think that the definition was more restricted in the Republican period, although in the third century AD Marcianus refers to *veteres* who excluded from the *peculium* anything the master was expected to provide for the upkeep of the slave:⁴¹

Et ita veteres distinguunt, si id adquisiit servus quod dominus necesse non habet praestare, id esse peculium, si vero tunicas aut aliquid simile quod ei dominus necesse habet praestare, non esse peculium.

³⁸ As suggested by the late second-century AD jurist Cervidius Scaevola, cited by Paul (2 *ad Vitellium*) in *Dig.* 33, 7, 18, 4: *Cum de vilico quaereretur et an instrumento inesset et dubitaretur, Scaevola consultus respondit, si non pensionis certa quantitate, sed fide dominica coleretur, deberi, echoing Scaevola (3 resp.) Dig.* 33, 7, 20, 1: (...) *respondit, si non fide dominica, sed mercede, ut extranei coloni solent, fundum coluisset, non deberi.*

³⁹ Micolier 1932; Watson 1965, 185-189; Buti 1976; Bradley 1984, 108-110; Dumont 1987, 109-125; Johnston 1995 and 2002; de Ligt 1999; Grotkamp 2005; Knoch 2005, 176-183; and for late Antiquity: Sirks 1999; Rosafio 2009. Brinkhof 1978 and Zeber 1981 were unavailable to me.

⁴⁰ Ulpian (29 *ad ed.*) *Dig.* 15, 1, 7, 4: *In peculio autem res esse possunt omnes et mobiles et soli vicarios quoque in peculium potest habere et vicariorum peculium; hoc amplius et nomina debitorum.* Florentinus (11 *inst.*) *Dig.* 15, 1, 39: *Peculium et ex eo consistit, quod parsimonia sua quis paravit vel officio meruerit a quolibet sibi donari idque vel proprium patrimonium servum suum habere quis voluerit.* On the composition of the *peculium* (assets and liabilities), cf. Micolier 1932, 146-180.

⁴¹ *Veteres* in Marcianus (5 *regularum*) *Dig.* 15, 1, 40, 1: «And thus the Ancients make a distinction. If the slave has acquired something his master was not supposed to provide, it is *peculium*, but if it

Aelius Tubero, cited with approval by Celsus and Ulpian, provides the earliest and most economic definition of what a *peculium* is:⁴²

Peculium autem Tubero quidem sic definit, ut Celsus libro sexto digestorum refert, quod servus domini permissu separatim a rationibus dominicis habet, deducto inde si quid domino debetur.

By coincidence, we know that issues related to the nature of the *peculium* were discussed earlier, as Servius is reported to have commented on the rather eccentric problem of the relationship between the master's property, his slave's *peculium*, and the *peculia* of his slave's slaves (*vicarii*):⁴³

(...) id vero, quod ipsis (scil. vicariis) debet ordinarius servus, non deducetur de peculio ordinarii servi, quia peculium eorum in peculio ipsius est (et ita Servius respondit), sed peculium eorum augebitur, ut opinor, quemadmodum si dominus servo suo debeat.

Ulpian's idea seems to be that a slave (*ordinarius*)'s *peculium* may include slaves (*vicarii*) endowed with their own *peculium*, with assets and liabilities, and when it comes to estimating the value of the slave's *peculium*, everything should be taken into consideration. The issue must have been hot, because Labeo later on joined the discussion:⁴⁴

Definitio peculii quam Tubero exposuit, ut Labeo ait, ad vicariorum peculia non pertinet, quod falsum est: nam eo ipso, quod dominus servo peculium constituit, etiam vicario constituisse existimandus est.

Disagreements on such issues only reflect the complexity of the institution, which starts with the way it is set up. Tubero's definition, quoted by Celsus and discussed above, underlines two steps or elements: the master's consent and the

is a garment or something of the kind that his master ought to provide, it is not *peculium*.» *Veteres* are usually identified as third- and second-century BC, "pre-Mucianic" jurists, some of whom were influenced by Stoic thought and close to the Scipionic circle; cf. Wieacker 1988, 531-551, esp. 540 n.58; 617; 620 n.13; and 633-634 n.87.

⁴² Tubero and Celsus in Ulpian (29 *ad ed.*) *Dig.* 15, 1, 5, 4: «As Celsus reports in his sixth book of *digesta*, Tubero defines *peculium* as follows: what a slave holds, with his master's permission, apart from the master's accounts, after deduction of what he owes his master.»

⁴³ Servius, Proculus and Atilicianus in Ulpian (29 *ad ed.*) *Dig.* 15, 1, 17: «(...) But what the slave owes his own slaves should not be deducted from his *peculium*, because their *peculium* is part of his *peculium* (this was Servius' response), but their *peculium* will be increased, in my (*scil.* Ulpian's) opinion, as if the master owed his slave.»

⁴⁴ Tubero and Labeo in Celsus (6 *dig.*) *Dig.* 15, 1, 6: «The definition of *peculium* that Tubero has presented does not apply, according to Labeo, to the *peculia* of *vicarii*, which is wrong, because from the fact that the master has established a *peculium* for his slave, he must be regarded as having established it for the *vicarius*.» Labeo's position was unacceptable to later jurists who sided with Tubero, cf. Celsus in Ulpian (29 *ad ed.*) *Dig.* 15, 1, 7: *Quam Tuberonis sententiam et ipse Celsus probat.*

drawing of separate accounts:⁴⁵ The issue of the master's consent is crucial. In a commentary on Quintus Mucius, the second-century AD jurist Pomponius suggests that it could be tacit and assumed, «even without his knowledge, insofar as he would have suffered it to be part of the *peculium*, had he found out about it.»⁴⁶ Let us note that in Pomponius' words, the *peculium* consisted not only of what the master had conceded, but also of what the slave had subsequently acquired. To quote Papirius Fronto, another second-century AD jurist, a *peculium* was like an organic being, whose birth was necessarily followed by growth, peak, decline, and death.⁴⁷

My point here is that the grant of a *peculium* was always a tricky and consequential matter. For the *dominus*, the creation of a separate account was more than an inconvenience, since the *peculium* was expected to follow a course of its own, which would require regular supervision. Its well-being depended on the care, honesty, and competence of the slave holding it. Above all, it was risky for the *dominus* as much as for the slave, since the very existence of the *peculium* opened the door to contractual liability to the extent of the *peculium* (*dumtaxat de peculio*). The larger the *peculium*, the higher the risk incurred, even more so because almost any transaction carried out by the slave would be covered by the *peculium* through the *actio de peculio*.⁴⁸ This remedy had a wider application than the *actio institoria* or *exercitoria*, restricted to economic activities performed within the framework of a *praepositio*, defined by a written charter (*lex praepositionis*), local custom, or common sense.

Consequently, one should ask why slaveowners would resort at all to such a sensitive legal institution. We know from the agronomists that a lot of business was being carried out in the countryside, from the regular marketing of surpluses on periodic market-days, to numerous day-to-day, door-to-door, petty transactions involving staples, commodities, goods, money-lending, and paid services (*operae, munera*). Rural slaves, *vilici* and *actores*, possibly others as well, often performed such activities, if we are to believe the recurring and mounting disapproval voiced by the agronomists. If other landowners were unhappy too with such activities,

⁴⁵ Tubero and Celsus in Ulpian (29 *ad ed.*) *Dig.* 15, 1, 5, 4: *Peculium autem Tubero quidem sic definit, ut Celsus libro sexto digestorum refert, quod servus domini permissu separatim a rationibus dominicis habet, deducto inde si quid domino debetur.*

⁴⁶ Pomponius (4 *ad Quintum Mucium*) *Dig.* 15, 1, 49 *pr.*: *Non solum id peculium est, quod dominus servo concessit, verum id quoque, quod ignorante quidem eo acquisitum sit, tamen, si rescisset, passurus erat esse in peculio.* This, however, might be the result of a later – classical or post-classical – development. The end of the passage is obviously interpolated.

⁴⁷ Papirius Fronto in Marcianus (5 *regularum*) *Dig.* 15, 1, 40 *pr.*-1.: *Peculium nascitur crescit decrescit moritur, et ideo eleganter Papirius Fronto dicebat peculium simile esse homini. I. Quomodo autem peculium nascitur, quaesitum est. (...) Ita igitur nascitur peculium; crescit, cum auctum fuerit; decrescit, cum servi vicarii moriuntur, res intercidunt; moritur, cum ademptum sit.*

⁴⁸ With the restriction pointed out by Johnston 1995 (cf. above). Cf. now Johnston 2007, 173-179.

they would have been unlikely to promote them by enabling the majority of their slaves through the grant of a *peculium*.⁴⁹

In this respect, it has been recently claimed that rural slaves were chronically underfed and that they were given the opportunity to supplement their daily or monthly allowance with the produce of their *peculium*, especially if they were to raise a family.⁵⁰ As the word *peculium* itself recalls, this may very well have been the case in the olden days. The evidence of the *veteres* cited above (*Dig.* 15, 1, 40, 1) suggests that such practices should be labelled differently, as they may have been inconsistent with the *actio de peculio*, the creation of which I would date somewhat later than Cato⁵¹ but certainly before Varro, some time in the second half of the second century BC. Otherwise, many rural slaves would have been roaming through the countryside, engaging in all kinds of transactions for which the landowner/slaveowner would have been held responsible, *dumtaxat de peculio*. Alternatively, it is possible that the couple of cows and chicken by which slaves tended to supplement their daily rations did not qualify as *peculium* in the juristic sense of the word, either because they were not formally granted (*domini permissu*) or because they were not separately accounted for (*separatum a rationibus dominicis*). All references to *peculium* in Varro's *Res rusticae* pertain to livestock tended by slaves for the purpose of supplementing their rations.⁵² It seems clear to me that jurists and agronomists are speaking of two different things.

Who, then, would entrust his slave with a *peculium* in the juristic sense of the word, and more so with a large and complex one? Probably only a man of means, used to dealing with well-tested, trustworthy servants, and looking for business opportunities allowing for little – if any – supervision, in locations and contexts outside his reach, pretty much the same person who would be ready to invest in the *instrumentum fundi* under direct management. Plutarch, in his *Life of Cato the Elder*, describes such a character:⁵³

However, as he applied himself more strenuously to money-getting, he came to regard agriculture as more entertaining than profitable, and invested his capital in business that was safe and sure. He bought ponds, hot springs, districts given over to fullers, all of which brought him in large profits, and “could not,” to use his own phrase, “be ruined by Jupiter.” He used to loan money also in the most disreputable

⁴⁹ Varr. *R.R.* 1, 17, 5 recommends to extend its grant to *praefecti* (foremen) as an incentive (“ut habeant peculium”). In itself, the passage sounds restrictive.

⁵⁰ Roth 2005 and 2007, 36 and 44-45. Cf. Isid, *Etym.* 5.25.5.

⁵¹ Pace de Ligt 1999, cf. Aubert 2007.

⁵² Varr. *R.R.* 1, 2, 17: (...) *servis peculium, quibus domini dant ut pascant* (...); 1, 17, 7: (...) *concessioneve ut peculiare aliquid in fundo pascere liceat* (...) and 1, 19, 3 (animals).

⁵³ Plut. *Cat. Mai.* 21, 5-8. Translation B. Perrin, Loeb Classical Library.

of all ways, namely, on ships, and his method was as follows. He required his borrowers to form a large company, and when there were fifty partners and as many ships for his security, he took one share in the company himself, and was represented by Quintio, a freedman of his, who accompanied his clients in all their ventures. In this way his entire security was not imperiled, but only a small part of it, and his profits were large. He used to lend money also to those of his slaves who wished it, and they would buy boys with it, and after training and teaching them for a year, at Cato's expense, would sell them again. Many of these boys Cato would retain for himself, reckoning to the credit of the slave the highest price bid for his boy. He tried to incite his son also to such economies, by saying that it was not the part of a man, but of a widow woman, to lessen his substance. But that surely was too vehement a speech of Cato's, when he went so far as to say that a man was to be admired and glorified like a god if the final inventory of his property showed that he had added to it more than he had inherited.

Was Cato the Elder the typical investor ready to take advantage of the *actio de peculio* or to build productive entities on the model reflected by the preclassical jurists dealing with the *instrumentum*? Maybe, but according to Plutarch, he may have been just too cautious.

Conclusion

My conclusion can be stated in five sentences:

1. Republican jurists, from Q. Mucius Scaevola to Aelius Tubero, were already involved in heated controversies about legal instruments and arrangements pertaining to the management of businesses, especially agricultural estates.

2. These legal instruments and arrangements are best understood, and make perfect sense, within the context of the villa economy described by the Latin agronomists, and in connection with the strategies proposed by them.

3. The jurists suggest that landowners, as much as tenants, were responsible for investing in the equipment of economic units, providing tools, livestock, and personnel. However, this responsibility did not include maintenance and improvement of the land and facilities.

4. Investments in the form of the grant of a *peculium* must have been selective because of the practical difficulties and financial risks attached to this legal institution.

5. Even though it is not possible to quantify the phenomenon, the financial investment by the propertied classes in slaves' *peculia* and in the equipment of agricultural estates may have had a tremendous impact on the overall productivity of the economy, given the prevalence of both slavery and agriculture in the late Roman Republic.

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