

The *Nexum* Contract as a “Strange Artifice”

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In 1967 MacCormack¹ observed: “The number and diversity of the views expressed on *nexum* have become notorious; even today no agreement has been reached.” All that seems to be clear is that *nexi* were debt-“slaves.” While progress has been made, including by MacCormack himself, there remain major gaps in our understanding². This paper deals with two central questions: (1) What is a *nexum*-contract?; (2) Why did it flourish after Rome’s enactment of the Twelve Tables? It is suggested that these questions can be answered satisfactorily once it is recognized that reliance on the *nexum*-contract was encouraged by maximum interest rate laws and legal procedures making it more difficult (costly) to enslave defaulting debtors.

1. Debt Slavery before the Twelve Tables

Livy³ describes the emergence of debt-problems in the early fifth century BCE:

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¹ G.MACCORMACK, *Nexi, Iudicati and Addicti in Livy*, ZSS 84 (1967), p.350.

² For useful discussions, see J.-J.AUBERT, *The Republican Economy and Roman Law: Negotiation, Promotion, or Reflection?*, in H.I.Flower (ed.), *The Cambridge Companion to the Roman Republic*, Cambridge 2004, pp.160-78; O.BEHREND, *Das nexum im Manzipationsrecht oder die Ungeschichtlichkeit des Libraldarlehens*, RIDA 3 (1974), pp.563-598.

³ Livy 2.23.1-8; Translation by D.SPILLAN, *History of Rome by Titus Livius*, London 1857.

But both the Volscian war was threatening and the state, being disturbed within itself, glowed with intestine animosity between the senate and people, chiefly on account of those confined for debt (*maxime propter nexos ob aes alienum*). [2] They complained loudly, that whilst fighting abroad for liberty and dominion, they were captured and oppressed at home by their fellow citizens; and that the liberty of the people was more secure in war than in peace, among enemies than among their fellow citizens; and this feeling of discontent, increasing of itself, the striking sufferings of an individual still further aggravated. A certain person advanced in years threw himself into the forum with all the badges of his miseries on him. [3] His clothes were all over squalid, the figure of his body still more shocking, being pale and emaciated. [4] In addition, a long beard and hair had impressed a savage wildness on his countenance; in such wretchedness he was known notwithstanding, and they said that he had been a centurion, and compassionating him they mentioned openly other distinctions (obtained) in the service: he himself exhibited scars on his breast, testimonies of honourable battles in several places. [5] To persons repeatedly inquiring, whence that garb, whence that ghastly appearance of body, (the multitude having now assembled around him almost like a popular assembly), he says “that whilst serving in the Sabine war, because he had not only been deprived of the produce of his land in consequence of the depredations of the enemy, but also his residence had been burned down, all his effects pillaged, his cattle driven off, a tax imposed on him at a time very distressing to him, he had incurred debt; that this debt, aggravated by usury, had stripped him first of his father's and grandfather's farm, then of his other property; lastly that a pestilence, as it were, had reached his person. [6] That he was taken by his creditor, not into servitude (*servitatem* = “slavery/service”), but into a house of correction (*ergastulum*) and a place of execution.” He then showed his back disfigured with the marks of stripes still recent. At the hearing and seeing of this a great uproar takes place. [7] The tumult is now no longer confined to the forum, but spreads through the entire city. Those who were confined for debt, and those who were now at their liberty [*vincti solutique* “set free”/“unbound”], hurry into the streets from all quarters and implore the protection of the people. [8] In no place is there wanting a voluntary associate of sedition. They run through all the streets in crowds to the forum with loud shouts.

Livy does not disclose whether the old soldier escaped from confinement or was released after his loan had been repaid, but this charac-

ter serves his rhetorical purpose. Indeed, Ogilvie⁴ suggests that the impoverished centurion is a “classic ‘stage’ type” which “bears every mark of being one of those case-histories invented by early lawyers to illustrate the workings of the Twelve Tables”. Better it is a case-history invented by a reform-minded politician. This case makes clear that *nexum* (“bondage [by contract]”) includes literal confinement of a defaulting debtor by the creditor *or* that he serve the creditor as/like a slave. Indeed, Livy’s⁵ phrasing “*ductum se ab creditore non in servitium, sed in ergastulum et carnificinam esse*” makes it appear that servitude was the normal expectation for *nexi*. The creditor perhaps chose literal confinement for the old soldier because he did not much value the labor services of an old man.

Livy⁶ continues:

[6] He (the consul Servilius) gave additional confidence to the assembly by an edict, by which he ordained that no one “should detain a Roman citizen either in chains or in prison, so as to hinder his enrolling his name under the consuls. And that nobody should either seize or sell the goods of any soldier, while he was in the camp, or arrest his children or grandchildren.” [7] This ordinance being published, the debtors under arrest (*nexi*) who were present immediately entered their names, and crowds of persons hastening from all quarters of the city from their confinement, as their creditors had no right to detain their persons, ran together into the forum to take the military oath. [8] These made up a considerable body of men, nor was the bravery or activity of the others more conspicuous in the Volscian war. The consul led out his army against the enemy, and pitched his camp at a little distance from them.

Here, significantly, Livy reveals that some current *nexi* happened to be present. There is no indication that these individuals were chained or had escaped from prison. Hence, it may be inferred from their presence that “confinement/arrest” of defaulted debtors included at least a limited freedom for carrying out the instructions of the creditors. As Dionysius of Halicarnassus⁷ puts it: “For the creditors showed no moderation in the use of their power, but haling their debtors to

⁴ R.M. OGILVIE, *A Commentary on Livy, Books 1-5*, Oxford 1965, p.298.

⁵ Livy 2.23.6.

⁶ Livy 2.24.6-8. Translation by SPILLAN.

⁷ Dionysius of Halicarnassus 5.53.2. Translation by E.CARY, *The Roman Antiquities of Dionysius of Halicarnassus*. Cambridge (MA.) 1937.

prison, treated them like slaves they had purchased.” But treating individuals like a purchased slave includes utilizing their labor.

Livy⁸ adds:

After the defeat of the Auruncians, the people of Rome, victorious in so many wars within a few days, were expecting the promises of the consul and the engagement of the senate (to be made good). But (the consul) Appius, both through his natural pride, and in order to undermine the credit of his colleague, issued his decrees regarding borrowed money, with all possible severity. And from this time, both those who had been formerly in confinement were delivered up to their creditors, and others also were taken into custody.

Livy’s point is that defaulting debtors, old and new, were once again enslaved.

In conclusion, note that the old soldier surrendered his other property *before* surrendering himself and becoming a *nexus*. MacCormack⁹ explains: “Seizure of the debtor by the creditor in circumstances which make the former a *nexus* seems to be contemplated as the final step in the procedure for the recovery of the original debt.” *This conclusion matches the traditional view which regards nexum as a means for securing a loan.* In order to obtain loans borrowers must have sworn in a formal ritual (*per aes et libram*) that if they defaulted the creditor might imprison them or to make them labor as/like slaves until the debt was repaid (*manus iniectio*). Livy does not explicitly state that debtors actually ceased to be *nexi* when their debt was repaid. However, this understanding finds support in two elements of Livy’s account. First, Livy¹⁰ refers to *nexi* who had been freed/unbound (*solvo*). Second, creditors would be willing to bear the cost of imprisoning a *nexus* to pressure his family and friends to repay his debt. Obviously, no one would repay unless repayment was followed by release of the *nexus* from imprisonment or servitude.

Livy’s *nexus* is best viewed as a defaulting debtor who was enslaved until he repaid his loan. Just as the defaulting borrower was bound to enter the creditor’s service the creditor was bound by oath

⁸ Livy 2.27.1. Translation by SPILLAN.

⁹ MACCORMACK, *Nexi, Iudicati and Addicti in Livy*, p.351. See also D.E.PHILLIPSON, *Development of the Roman Law of Debt Security*, Stanford Law Review 20 (1968), p.1234.

¹⁰ Livy 2.23.7.

and ritual to release the debtor when the loan had been worked off¹¹. Watson¹² adds, “Moreover, one cannot wholly exclude the possibility that the *nexus* could sue for his own release”. Obviously, in the case of a dispute the *nexus* could call for the testimony of the witnesses to his original loan transaction. It might be added that a creditor who refused to release his debtors would suffer reputational damage. This much is made clear by Livy: when Servilius issued his edict the creditors immediately released their *nexi* from bondage.

So far as we are told the practice of enslaving defaulting debtors continued unchanged until the enactment of the Twelve Tables in about the middle of the fifth century. One additional point is worth mentioning. Debtors did not necessarily have to agree to make their persons available to the creditor in the event of default. A loan contract might specify that only the debtor’s goods might be seized by the creditor. To paraphrase the XIITab.6.1, the underlying legal philosophy is that the law is what contracting parties agree. However, a contractual provision calling for control of the debtor’s body reduced the creditor’s default risk and, due to pain incentives, it increased the expected productivity of the debtor’s labor power¹³. Hence, other

¹¹ M.KASER, *Roman Private Law* (2nd ed.), London 1968, p.34 points out, “early Roman law together with other early legal systems shared the conviction that legal bonds could be created by *acting* in a *formal* (ritual) manner.” The bonds created were real and not narrowly “legal,” however. As noted by A.CORBEILL, *Gesture in Early Roman Law: Empty Forms or Essential Formalities?*, in D.Cairns (ed.), *Body Language in the Greek and Roman Worlds*, Swansea 2005, p.160 in discussing *manus iniectio* (“laying on of hands”) the sources do not reveal physical resistance by defendants: “Something appears to have facilitated the unsuccessful party’s acquiescence in an unfavorable decision.” For the ancients, sealing a bargain by means of oaths and rituals played a major role in establishing a sense of community and confidence, a “social contract,” among contractors. P.J.Du PLESSIS, *The Roman Concept of lex contractus*, *Roman Legal Tradition* 3 (2006), pp.85,93 explains with respect to contracts for letting and hiring the consensus between the contracting parties “generated a ‘law’ between them.” Self-interested violation of contractual obligations was deterred by powerful emotions of respect, guilt, shame, and fear of the gods. More than anything else this is what distinguishes ancient from modern economic man.

¹² A.WATSON, *Rome of the Twelve Tables: Persons and Property*, Princeton 1975, p.116.

¹³ The special importance of slavery to owners arises from its provision by means of pain incentives of greater control over the laborer than would be possible under an ordinary (wage/salary) employment contract. See Y.BARZEL, *An Economic Analysis of Slavery*, *Journal of Law and Economics* 20 (1977), pp.87-110; S.FENOALTEA, *Slavery and Supervision in Comparative Perspective: A Model*, *Journal of Economic*

things equal, lenders would offer lower interest rates and larger loans to borrowers willing to secure their loans with their bodies. Thus, some/many borrowers would decide to risk enslavement in the event that they could not otherwise repay.

2. Enactment of the Twelve Tables

The enactment of the Twelve Tables is conventionally dated to the middle of the fifth century BCE. XIIITab.3.1-6 specifies a number of steps before creditors were permitted to enslave a defaulting debtor¹⁴.

1. Thirty days shall be allowed by law for payment of confessed debt and for settlement of matters adjudged in court.
2. After this time the creditor shall have the right of laying hand on the debtor. The creditor shall hale the debtor into court.
3. Unless the debtor discharges the debt adjudged or unless someone offers surety for him in court the creditor shall take the debtor with him. He shall bind him either with a thong or with fetters of not less than fifteen pounds in weight, or if he wishes he shall bind him with fetters of more than this weight.

History 44 (1984), pp.635-68. The slave might be fed a “ration” consisting only of the necessities to maintain him as an effective worker. Thus, Romans might give their slaves *cibaria* “food rations” sufficient to satisfy their basic energy requirements (Cato *De Agri Cultura* 56; K.R.BRADLEY, *Slavery and Society at Rome*. Cambridge 1994, pp.81-82; XIIITab.3.4 (quoted below); T.WIEDEMANN, *Greek and Roman Slavery*, London 1981, nos. 17, 39. Slaves might also be forced to follow a “healthier” life style (e.g., avoidance of pregnancy and childbirth, less wine and more nutritious food, wearing protective clothing) than would be chosen by a self-owned worker. Moreover, the slave might be “sweated”—that is, forced to work a longer and more intense day in more dangerous and more unpleasant conditions than would be chosen by a free worker. J.BODEL, *Trimalchio’s Underworld*, in J.Tatum (ed.), *The Search for the Ancient Novel*, Baltimore 1994, p.252 explains, “Roman slaves were treated in law, and often in practice, as less than human, the equivalent, in many ways, of animals” and he nicely illustrates the point by citing a passage in the Petronius’ *Satyricon* (117.10) wherein the hired man Corax complains: “You seem to think I am a beast of burden or a ship for carrying stones... You paid for the services of a man, not a horse. I am just as free as you are, although my father did leave me a poor man”. Economists G.CANARELLA and J.A.TOMASKE, *The Optimal Utilization of Slaves*, *Journal of Economic History* 35 (1975), p.623 put it this way: “The slave is thus monopsonistically exploited on a ‘market’ which is internal to the firm. Because of the additional argument, force [pain, a discommodity], in his utility function, the slave is worse off and has less control of his income than a free but monopsonistically exploited industrial worker or so-called ‘wage slave’ ”.

¹⁴ Translations of Twelve Tables by A.C.JOHNSON et al. *Ancient Roman Statutes, Translation with Introduction, Commentary and Glossary*, Austin 1961, p.10.

4. If the debtor wishes he shall live on his own means. If he does not live on his own means the creditor who holds him in bonds shall give him a pound of grits daily. If he wishes he shall give him more.

5. ... Meanwhile they shall have the right to compromise, and unless they make a compromise the debtors shall be held in bonds for sixty days. During these days they shall be brought to the praetor into the meeting place on three successive market days, and the amount for which they have been judged liable shall be declared publicly. Moreover, on the third market day they shall suffer capital punishment or shall be delivered for sale abroad across the Tiber River. (*Tertiis autem nundines capite poenas dabant aut trans Tiberim peregre venum ibant*).

6. On the third market day the creditors shall cut shares. If they have cut more or less than their shares it shall be without prejudice. (*Tertiis nundinis partis secanto: Si plus minusue secuerunt, se fraude esto*).

The Twelve Tables do not refer to a defaulted debtor as a *nexus*. (*Nexum* is mentioned in XIITab.6.1 in connection with making a contract.) What is supposed to happen on the third day is rather extreme but the alternatives seem symmetrical: defaulted debtors are executed/cut up and become dead persons or they are sold abroad into slavery and become nonpersons. Aulus Gellius¹⁵, the source for these provisions, explains them as a deterrent for potential defaulters: “Nothing surely is more merciless, nothing less humane, unless, as is evident on the face of it, such a cruel punishment was threatened in order that they might never have to resort to it.” I do believe, with Aulus Gellius, that the Romans valued private debt contracts and did not wish the loan market to be “spoiled” by letting defaulters off lightly. I do not doubt that harsh punishments were specified as a deterrent and that things went extremely badly for a debtor who could not/would not repay and also refused to slave. But I do doubt that defaulters might be threatened only with execution¹⁶, being cut up¹⁷, or with

¹⁵ Aulus Gellius *Attic Nights* 20.1.50-1. Translation by J.C.ROLFE, *The Attic Nights of Aulus Gellius*, Cambridge (MA.) 1927.

¹⁶ “The civil personality, the *caput* of the debtor was destroyed. That seems a better way of understanding *capite poenas dabant* than that the debtor was incontinently killed” (M.RADIN, *Secare Partis: The Early Roman Law of Execution Against a Debtor*, American Journal of Philology 43 (1922), p.45. I agree. The provision refers to *capitis deminutio maxima* (D.4.5.11 Paul).

¹⁷ “All that we read is *tertiis nundinis partis secanto*. The words ‘body of the debtor’ are not there... Not only that, but the little word ‘in’ is surreptitiously introduced. Gellius and modern writers quote the phrase in the form given, but when they discuss

being sold abroad. The symmetry of provisions may have been more humane, more convincing to potential defaulters and, not least, more attractive to creditors. My intuition is that creditors had the legal option to force defaulted debtors to repay by means of servile labor. Further, I believe that the expansive phrase “sale across the Tiber” actually means that creditors had the option to sell the debtor’s *time-limited* slave services to *anyone* they wished, not only to a foreigner. The argument in Section 3 (below) does not depend upon the validity of these surmises, however.

Roby¹⁸ concludes: “With the exception of this last clause the whole procedure agrees well with Livy’s description; only that he applies *nexus* to the debtor, and does not make any difference between their state before and after the final addiction.” Probably, as in Livy, repayment freed the defaulted debtor from confinement and/or servitude whether to the original creditor or to a second (Roman or foreign) “owner¹⁹”.

The newly enacted set of laws includes an additional most relevant provision. XIITab.8.18a establishes a maximum interest rate per annum of “one twelfth.” This provision is found only in Tacitus (quoted below). The meaning of the legally permitted maximum interest has been disputed. Scholars understand the maximum to be 8^{1/3}% or 10% or 1% or 100% per annum²⁰. Unfortunately, discussions of what Tacitus meant by “one twelfth” have been troubled by technical issues and

it they cite is as though it read *in partis*” (RADIN, *Secare Partis*, p.42). RADIN, *Secare Partis*, pp.45-48 argues that the debtor’s property was sold by the state to *sectores* “public agents”.

¹⁸ H.J.ROBY, *Roman Private Law in the Times of Cicero and the Antonines*, Vol. II. Cambridge 1902, p.303.

¹⁹ Solon (Fragment 36) said: “And I brought back to Athens... many who had been sold, one legally another not, and those who had fled under necessity’s constraint, no longer speaking the Attic tongue...” Translation by D.E.GERBER, *Greek Elegiac Poetry: From the Seventh to the Fifth Centuries BC.*, Cambridge (MA.) 1999, p.159. Evidently Athens was able to keep track of its debt-slaves.

²⁰ J.ANDREAU, *Banking and Business in the Roman World*, Cambridge 1999, pp.90-91; P.J.THOMAS, *Did the Twelve Tables Limit Interest?* Tydskrif vir die Suid-Afrikaanse Reg 1 (2008), pp.52-65 has suggested that the limit on the interest rate in the Twelve Tables represents a back projection by Tacitus of a contemporary social problem and that the limit on interest rates was actually introduced in 357 BCE by the *lex Duilia Menenia*. This objection may be valid but in the absence of direct evidence to the contrary I think I must assume that Tacitus was not misinformed or lying.

influenced by considerations about what the Roman economy was “really like” in the middle of the fifth century BCE.

The basic problem is that all we “really know” is what the sources tell us. Theory must accommodate itself to and build upon sometimes painfully extracted snippets and factoids of the actual past. So far as I am able to tell the sources do not reveal that markets were more or less prevalent than in later times. Frank’s²¹ conclusions (citing the Cassian treaty of the Latin League) deserve quotation in this connection: “[T]he clauses of the Twelve Tables that deal with the rate of interest, with *nexum* and with *depositum* all point to contracts quite beyond the sphere of mere and immediate exchange of goods. In a word we must assume that at the close of the regal period Rome was a large and busy commercial city where the old and simple forms of barter based upon the instantaneous exchange of goods no longer sufficed, and that merchants trading at Rome introduced many of the liberal forms of contract that were in vogue at other ports.” Tacitus, of course, tells that the interest rate was determined in the credit market. Although, this was not his purpose Livy’s observations make clear that markets were sufficiently developed to support loans in money. Moreover, to judge by the “crowds” of *nexi*, a not insignificant number of individuals were taking these cash loans. Indeed, the *nexi*, those borrowers who were unable to repay, would necessarily represent only a fraction of all borrowers.

The simplest assumption is that the legal maximum interest rate was 12% per annum which is also the value prevailing in later Republican and earlier Empire times. Much more important than the exact interest rate is, as Tacitus²² stresses, that the legal maximum mandated in the Twelve Tables suppressed market determination of interest rates: “The curse of usury was indeed of old standing in Rome and a most frequent cause of sedition and discord, and it was therefore re-

²¹ T.FRANK, *Some Economic Aspects of Rome’s Early Law*, PAPHS 70 (1931), 197f.

²² Tacitus *Annals* 6.16, Translation by A.J.CHURCH/W.J.BRODRIBB, *The Complete Works of Tacitus*, New York 1942. Tacitus’ formulation does not mean that the loan market was monopolistic rather than perfectly competitive. No member of the elite would ever say that the interest rate depended on the caprice of the borrowers. Even if they did it would not mean that the borrowers had monopoly power. In a perfectly competitive loan market the interest rate fluctuates with the “caprices” of lenders (the supply curve of loanable funds) and the “caprices” of borrowers (the demand curve for loanable funds).

pressed even in the early days of a less corrupt morality. First, the Twelve Tables prohibited any one from exacting more than *unciario faenore*, when, previously, the rate had depended on the caprice of the wealthy". The implications of the suppression of the forces of demand and supply in the credit market have not yet received the attention they deserve.

3. *Nexum after the Twelve Tables*

In the first half of the fourth century, after the enactment of the Twelve Tables, it is seen that numbers of people are still being enslaved for debt making it appear that nothing has changed. However, this first impression is misleading. Livy's commentary is somewhat ambiguous or even evasive but arguably it means that unlike the situation before the Twelve Tables (as is made clear in his example of the old soldier) enslavement of the debtor is not anymore visualized as the last step in the debt-collection process when the debtor has become insolvent. Instead of the debtor's person—his services as a slave—serving as surety for the loan the borrower's enslavement is the first step in his obtaining the loan and slave labor is the currency in which he is to make repayment. *In the new "untraditional" form of nexum a loan in cash is expected to be repaid not in cash, but rather by the labor services of the borrower.* The debtor swears to repay the loan by permitting the creditor to use his labor-power and the creditor swears to release the debtor after having used his labor.

Livy²³ explains:

non eadem domi quae militiae fortuna erat plebi Romanae. nam etsi unciario fenore facto levata usura erat, sorte ipsa obruebantur inopes nexumque inibant; eo nec patricos ambo consules neque comitiorum curam publicave studia prae privatis incommodis plebs ad animum admittebat.

The Roman commons had not the same success at home as in war. For though the burden of interest money had been relieved by fixing the rate at one to the hundred, the poor were overwhelmed by the principal alone, and submitted to confinement. On this account, the commons took little heed either of the two consuls being patricians, or the management of the elections, by reason of their private distresses. Both consulships therefore remained with the patricians.

²³ Livy 7.19.5. Translation by SPILLAN.

MacCormack²⁴ observes: “The phrase *nexum inire* suggests that the act by which a person became a *nexus* was voluntary, that is, was not an act compelled by law”. Livy saw this but, as explained below, he did not understand *why* borrowers agreed to repay cash loans with (slave) labor services.

Livy’s Book 8 contains an even more striking passage. He relates the case of a young man, Gaius Publilius, who gave himself into *nexum* for his father’s debt: *cum se C. Publilius ob aes alienum paternum nexum dedisset*.

This year there arose, as it were, a new era of liberty to the Roman commons; in this that a stop was put to the practice of confining debtors. This alteration of the law was effected in consequence of the lust and signal cruelty of one usurer. [2] His name was Lucius Papirius. To him one Caius Publilius having surrendered his person to be confined for a debt due by his father, his youth and beauty, which ought to have excited commiseration, operated on the other's mind as incentives to lust and insult. [3] He first attempted to seduce the young man by impure discourses, considering the bloom of his youth his own adventitious gain; but finding that his ears were shocked at their infamous tendency, he then endeavoured to terrify him by threats, and reminded him frequently of his situation. [4] At last, convinced of his resolution to act conformably to his honourable birth, rather than to his present condition, he ordered him to be stripped and scourged. [5] When with the marks of the rods imprinted in his flesh the youth rushed out into the public street, loudly complaining of the depravedness and inhumanity of the usurer; [6] a vast number of people, moved by compassion for his early age, and indignation at his barbarous treatment, reflecting at the same time on their own lot and that of their children, flocked together into the forum, and from thence in a body to the senate-house. [7] When the consuls were obliged by the sudden tumult to call a meeting of the senate, the people, falling at the feet of each of the senators, as they were going into the senate-house, presented to their view the lacerated back of the youth. [8] On that day, in consequence of the outrageous conduct of an individual, the strongest bonds of credit were broken; and the consuls were commanded to propose to the people, that no person should be held in fetters or stocks, except convicted of a crime, and in order to punishment; but that, for money due, the goods of the debtor, not his person, should be answerable. [9] Thus

²⁴ MACCORMACK, *Nexi, Iudicati and Addicti in Livy*, p.353.

the confined debtors were released; and provision made, for the time to come, that they should not be liable to confinement²⁵.

There is no indication that the material property of Publilicus' father had already been seized by the creditor Lucius Papirius, as in traditional *nexum*. Again, we may understand that the new contractual element is that becoming a *nexus* (being enslaved) has become a voluntary first step in obtaining a loan instead of the final step in non-repayment of a loan. At this point in time there are two distinct paths to *nexus* status or at least, since the Twelve Tables does not mention this status, there has emerged a new path to becoming a *nexus*. For this finding Roman legal scholarship owes a great and unacknowledged debt to MacCormack. As will be seen next, this interpretation of Livy's account is reinforced by Varro.

Looking beneath the reform-minded rhetoric concerning sexual abuse of young men it becomes clear that the new type of loan contract granted the creditor the right to exploit the labor-power of the *nexus* as if he were a slave. *Nexi* are slaves only "in a certain way²⁶". As explained by Varro²⁷: "A free man who, for money, which he owed, *nectebat* 'bound' his labour in slavery (*in servitute* 'like a slave') until he should pay [*dum solveret* 'work off'] the debt, is called a *nexus*..." A *nexus* is a free man who takes a loan and agrees to repay it by working like a slave for the lender until his debt was worked off. It should be noted that there is no reference in Livy or in Varro to repayment in cash. Note further that repayment in labor is a rather convoluted arrangement which, as will be explained shortly, it is not a mode that would be preferred if repayment in money was not problematic.

²⁵ Livy 8.28.1-9. Translation by SPILLAN. See also Dionysius of Halicarnassus 16.5.1-3.

²⁶ In Menander's *Heros* 20 Gorgias and his sister Plangon who are in debt-bondage are said (by Daos) to be slaves "in a certain way." This passage is cited and discussed by E.M.HARRIS, *Did Solon Abolish Debt Slavery?*, *Classical Quarterly* 52 (2002), pp.420-21.

²⁷ Varro *The Latin Language* 7.105. Translation by R.G.KENT, *Varro on the Latin Language*. Cambridge (MA) 1938, as augmented by M.I.FINLEY, *Debt-Bondage and the Problem of Slavery*, in B.D.Shaw/R.P.Saller (eds.), *Economy and Society in Ancient Greece*, New York 1982, p.159. See also ROBY, *Roman Private Law in the Times of Cicero and the Antonines*, pp.309-10; F.DE ZULUETA, *The Recent Controversy about Nexum*, *Law Quarterly Review* 19 (1913), p.137.

It is possible, I believe, to view the newer type of *nexum* transaction as one of *sale-for-repurchase* (a *fiducia* contract) if one understands, with Gaius²⁸, that free citizens are “mancipable.” The creditor and debtor agree by means of the formal witnessed procedure *per aes et libram* that the debtor sells himself into *servitude*²⁹ (for a specified period of time?) and repurchases himself by working off his purchase price (= loan). Consistently with this interpretation, Tuori³⁰ points out that Gaius in (Gai.2.27) identifies *nexum* with *mancipatio* and that Cicero (in *Letters to Friends* 7.30.2) uses the words interchangeably. The jurist Manilius, cited by Varro³¹, also saw *nexum* and *mancipatio* as closely related contractual forms: “*Nexum* ‘bound obligation,’ Manilius writes, is everything which is transacted by cash and balance-scale, including rights of ownership...”.

Quite possibly the contractual mode of being granted a loan to be repaid in labor services (and other types of antichretic loans) had been available and sometimes utilized prior to the Twelve Tables. However, Livy’s account suggests that this contractual form surged in importance especially during the fourth century when it attracted the attention of the legal authorities. *What might have changed in the economy to make this happen?* In answering this question the first point to note is that very often in economic life convoluted contractual forms turn out to be ingenious subterfuges or creative options designed to overcome legal obstacles to transactions deemed “exploitative” by the legal authorities³². As developed below, I have especially in mind illegally high interest rates on loans. Concretely, note that if an individual receives a loan of 100 denarii for one year and agrees to repay with labor services whose net product is worth 150 denarii, then the *implicit* annual rate of interest on the loan is 50 percent. It is as if

²⁸ Gai.1.120. See F.DE ZULUETA, *The Institutes of Gaius*. 2 Vols, Oxford 1946, p.39.

²⁹ See WATSON, *Rome of the Twelve Tables*, p.120. HARRIS, *Did Solon Abolish Debt Slavery?*, p.417 says: “The status of the *nexus* was thus *temporary* and granted the creditor *only* a right to the debtor’s labour” (emphasis added). This formulation is somewhat misleading. The creditor gained the right to exploit the labor-power of the *nexus* as if he were a slave not a free man (see note 13) and the “temporary” right to do this might be exercised for what most people would regard as a long time.

³⁰ K.TUORI, *The Magic of Mancipatio*, RIDA 55 (2008), p.504.

³¹ Varro *The Latin Language* 7.105. Translation by KENT. See also WATSON, *Rome of the Twelve Tables*, p.119.

³² See, for example, ANDREAU, *Banking and Business in the Roman World*, p.91.

the borrower received 100 denarii and agreed to repay 150 denarii in cash.

A major advantage of repayment in labor services is that the interest rate on the loan is not easily visible to outsiders. To calculate the interest rate the outsider has to know the value of the borrower's net output. Further, this value might change significantly from one borrower to another, due most obviously to differences in their embodied human capital. Thus repayment in labor would conceal from the legal authorities, necessarily uncertain about the productivity of (coerced) labor, the true interest rate being paid on the loan and, hence, *whether it violated the law*. An unfaithful debtor might go to the authorities and easily show them he had been charged more than the legally permitted interest rate on a loan to be repaid in cash. The authorities might well respond by reducing the stipulated interest payments, to the advantage of the debtor. The same debtor would have trouble demonstrating the interest rate on a loan to be repaid in his labor services. Moreover, beyond reducing the visibility of the interest rate, the authorities might not be able to determine whether the contract dealt with a loan or with the sale of labor services with payment in advance. But lack of visibility would not be an advantage unless, as in the present case, there was a reason to hide the interest rate. If not, the disadvantages of cash loans to be repaid in labor services would typically be decisive. The obvious disadvantage of repayment in labor services relative to repayment in cash is higher transaction costs for lenders. Most importantly, the creditor foregoes possible specialization gains when he exploits the debtor's labor himself or else he must bear the cost of an "extra" transaction by renting/selling the use of the debtor's labor services to a third party.

The problem of transfers merits detailed attention. As Gerard Noodt³³ noted already in 1713 a problem with the market transfer of labor services is that their value and hence the true interest rate are made more visible to the authorities. But this is only a potential problem. Transfers would be expected because, unlike the *nexus* himself, the purchaser of the right to use his labor services has nothing at all to gain from reporting the price he paid to the authorities. Indeed, a pur-

³³ Cited by P.J.THOMAS, *Antichresis, Hemiolia and the Statutory Limit on Interest in Gerard Noodt's De Foenore et Usuris*, (2008). Available for download at <http://www.alanwatson.org>.

chaser who informed the authorities would ruin his (possibly longstanding) business relationship with the lender and, moreover, he would run the risk of losing the cash he paid for the services of the *nexus*. Of course, some especially risk-averse lenders might be willing to accept a somewhat lower return by using the debtor's labor services themselves. The situation would change dramatically if the legal authorities actually policed the transfer of *nexa* to third parties³⁴. Or, if to reduce administrative costs while combating the resort to the *nexum*-contract, they at some point in time banned outright the transfer of *nexa*-services. In this event there would be significant efficiency losses as specialized lenders had to make themselves into employers or specialized employers added lending to their business plan. Whether this happened is not known but it should be noted that a limit

³⁴ Loans in cash to be repaid in kind are recognized in D.20.1.11.1 Marcian: "If an agreement is made for fruits in lieu of interest and a tenant is put in the land or house, the creditor retains possession by way of mortgage until the capital is paid to him, since *he takes fruits in lieu of interest either by letting the property or living there and taking them himself*. So if he loses possession, he can bring an *actio in factum*." Translation by A.WATSON, *The Digest of Justinian*. Philadelphia 1998, emphasis added. So land or a house could be occupied (for a limited time) or be transferred/sold (for a limited time) to a third party. A limitation on the transfer/sale of a *nexus* to a third party is not implicit in his being regarded as a slave only in "a certain way" (but see below and compare L.SAVUNEN, *Debt Legislation in the Fourth Century*, in U.PAANANEN, *et al*, *Senatus Populusque Romanus: Studies in Roman Republican Legislation*, Helsinki 1993, p.155. The latter ambiguity might simply refer to the fact that, unlike other slaves, his term of slave service was explicitly fixed in advance, not open-ended. In this case *nexi* might reasonably be viewed as free men. One example of sale into slavery for a predetermined period of time comes from the mythological career of Herakles. In his "later" career Herakles went to Asia Minor and there, for a price of three talents, he permitted a friend or the god of commerce Hermes to sell him into slavery to Omphale for a period of three years (Apollodorus *The Library* 2.6.2). He needed the cash to pay compensation to the kinsmen of Iphitus whom he had murdered. M.I.FINLEY, *Debt-Bondage and the Problem of Slavery*, p.150 explains: "Sophocles calls Heracles a *latris* of Omphale's (*Trachiniae* 70, equated by the scholiast with *doulos*) and he twice uses a verb meaning 'to sell' in this connection (lines 250, 252). Apollodorus (2.6.2-3) employs *latreuō* and *douleuō* interchangeably in his account, Diodorus (4.31.5-8) only *doulos* and its derivatives. The word *latris* has been a lexicographer's nightmare... for it means 'hired man', 'servant' and 'slave'..." Late Roman sources visualize the sale of minors for a period of twenty years. For sources and discussion, see W.SCHEIDEL, *The Roman Slave Supply*, in K.R.BRADLEY/P.CARTLEDGE (eds.), *The Cambridge World History of Slavery, I: The Ancient Mediterranean World*, Cambridge 2011, p.299.

on transferability is not implicit in *nexa* being slaves only “in a certain way.”

The bottom line of this discussion is that loans to be repaid in labor services had the effect of raising transaction costs by a greater or lesser amount and in this respect they compared unfavorably to loans to be repaid in cash. In order to learn why relatively costly to administer loans with murky interest rates might become popular we should begin by looking back to the Twelve Tables. We see first that the Twelve Tables includes a list of strenuous procedural safeguards (the *legis actio* procedure) needing to be heeded by a creditor before he would be allowed to reduce a defaulting debtor to slave status (if only by selling him abroad). The effect of such reforms would be to raise the transaction costs of making loans (e.g., lenders would screen borrowers more carefully to determine their ability and willingness to repay in cash and more time would need to be spent in legal procedures). More simply, the reforms acted to reduce the expected return to a creditor by delaying access to the labor services of a defaulting debtor or even denying them altogether. The result would be a reduction in the quantity of cash loans offered by creditors at each given interest rate. (That is, the positively sloped supply curve of loanable funds would be shifted upward and to the left.) As MacCormack³⁵ insightfully points out: “*Consequently it may not be too rash to suppose that creditors sought to avoid recourse to the legis actio procedure by insisting on entry into nexum as a condition for their loan*” (emphasis added).

Second, and more importantly, as noted earlier, Tacitus³⁶ testifies that the Twelve Tables replaced a market-determined interest rate with a legal maximum interest rate and Livy³⁷ refers explicitly to the imposition by the authorities of a maximum interest rate. The legally mandated reduction in the interest rate charged on loans caused a decline in the quantity of loanable funds supplied by lenders. (A decline as compared to a previous equilibrium position at a higher but now outlawed interest rate.) At the same time, the lower interest rate increased the quantity of loanable funds demanded by borrowers with the result that the quantity demanded exceeded the quantity supplied.

³⁵ MACCORMACK, *Nexi, Iudicati and Addicti in Livy*, p.354.

³⁶ Tacitus *Annals* 6.16.

³⁷ Livy 7.19.5.

That is, in the terms of the economist, there ensued a “shortage” (excess demand) of loanable funds.

Obviously, a decline in the actual availability of loanable funds (at each interest rate) due to the *legis actio* procedure combined with excess demand for loanable funds (at the prevailing interest rate) due to the legal maximum interest rate created a scenario in which borrowers and lenders implicitly cooperated to conceal that loans had been made and the actual interest rate³⁸. The *nexum*-contract was an ideal contractual instrument for achieving this result. Moreover, this evasive contract would be made even more tempting and prevalent if the maximum interest rate were further lowered or if, indeed, lending at interest were banned altogether. This appears to be what happened. Tacitus³⁹ tells: “Subsequently, by a bill brought in by the tribunes, interest was reduced to half that amount [half the amount in the Twelve Tables], and finally compound interest (*versura*) was wholly forbidden.” If *versura* should be understood as *usura* then Tacitus had in mind the *lex Genusia* of 342. This measure is referred to by Livy⁴⁰: “Besides these, I find in some writers that Lucius Genucius, tribune of the commons, proposed to the people, that no one should be allowed to practise usury.” Further, Appian⁴¹ in referring to events in 89 BCE refers to an “old law” making the charging of interest illegal. The

³⁸ The use of antichretic loans to conceal illegally high interest rates is well attested in ancient economic history (see also footnote 34). Thus in Nuzi in Assyria in the middle of second millennium BCE loans might be repaid in land-field services (the *tidennūtu* contract). G.D.JORDAN, *Usury, Slavery, and Land Tenure: The Nuzi tidennūtu Transaction*, *Zeitschrift für Assyriologie und vorderasiatische Archäologie* 80 (1990), pp.79-80 reports that the average loan is 15.05 silver shekels annually and the average gross income from the land is 37.02 silver shekels annually. Obviously, at the very least, cultivation expenses would have to be deducted from the gross income in order to better approximate the unknown rental value of the field. However, if we use the average loan and the average gross income to estimate average rental value, the upper limit for the interest rate is a healthy 146 percent. The median annual interest rate for 101 contracts is 251 percent. For further discussion of antichretic loans in the ancient Near East, see S.J.GARFINKLE, *Shepherds, Merchants, and Credit. Some Observations on Lending Practices in Ur III Mesopotamia*, *Journal of the Economic and Social History of the Orient* 47 (2004), pp.1-30.

³⁹ Tacitus *Annals* 6.16. Translation by CHURCH/BRODRIBB.

⁴⁰ Livy 7.42.1. Translation by SPILLAN.

⁴¹ Appian *The Civil Wars* 1.54. Translation by H.WHITE, *Appian Civil Wars, Mithridatic Wars*, New York 1899. See also Gai.4.23; ANDREAU, *Banking and Business in the Roman World*, p.91; C.T.BARLOW, *The Roman Government and the Roman Economy, 92-80 B.C.*, *American Journal of Philology* 101 (1980), p.213 with n.59.

reference to “old law” indicates that the law was not only “proposed” but enacted. *Whether or not the lex Genusia actually sought to reduce the legal interest rate on cash to zero it is clear that it further lowered the interest rate that might be charged by lenders and consequently strengthened an already powerful incentive for creditors to insist on entry into nexum as a condition for a loan.*

The predicted impact of the Roman state’s credit market policies surfaces in Livy’s⁴² compact presentation in which the *principal* became the problem for borrowers: “For though the burden of interest money had been relieved by fixing the rate at one to the hundred, the poor (*inops*) were overwhelmed (*obruo*) by the principal alone, and submitted to being bound (*necto*).” The usual interpretation is that debtors submitted to slavery because *at the end* they could not repay the principal. My understanding of Livy’s statement is that borrowers immediately volunteered to serve creditors as slaves *because at the legislated maximum interest rate they could not obtain the principal (the cash loan)*. On the other hand, borrowers could obtain the loans/principal they wished to have by volunteering to serve creditors like slaves and thereby (covertly) raising the interest rate they paid.

Livy knew that borrowers had agreed to immediately serve creditors like slaves but his explanation for this behavior is certainly different than mine: debtors volunteered *because, although the legal maximum interest rate helped, they were still too poor to repay cash (the principal)*. Livy’s explanation in terms of the poverty of borrowers fails to take into account the motives of the lenders and does not make economic sense. The actual receipt of cash loans by borrowers demonstrates that their labor services (as farmers, artisans, laborers, accountants, shop clerks, house servants, or whatever) had a sufficient cash value in the economy. Otherwise, we would have to conclude (against Livy’s report) that the greedy lenders (“the rich”) who gave out cash and received labor services typically lost money—that is, the value of the goods/services produced by a slave laborer was typically less than his loan⁴³. The best available explanation of

⁴² Livy 7.19.5. Translation by SPILLAN.

⁴³ The products/services produced by slave laborers were typically marketed rather than directly consumed. However, my argument does not require alienation of products in the market. For example, an enslaved household servant provides services to a creditor who values them less highly than the cash he gave to the servant. If credi-

what borrowers reportedly did is that they volunteered to provide slave services not despite the maximum interest rate law but in large measure because of it. Livy had to mention the lower interest rate on cash loans but he did not understand (or as a committed advocate of reform did not wish to understand) the effect of a maximum interest rate in creating excess demand for loans. Moreover, as will be seen below, the way in which economic theory ties together Livy's report finds support in Varro's testimony (discussed shortly) which reveals *nexi* who owned property and were indeed solvent. In the years after the Twelve Tables *nexi* did not fit the primitivist vision of "peasants" without human or material capital who needed loans merely to survive to the next day.

The post-Twelve Tables *nexum*-contract must be included as one of the "strange artifices", as Tacitus⁴⁴ puts it, by means of which market participants sought to evade government regulation of lending. Indeed, Livy⁴⁵ refers to the emergence of another such "artifice" in 193 BCE.

Livy⁴⁶ says: "On that day, in consequence of the outrageous conduct of an individual, the strongest bonds of credit were broken; and

tors typically preferred having the cash to the services of the servant they would not lend.

⁴⁴ Tacitus *Annals* 6.16.

⁴⁵ Livy 35.7.2-6: "[2] There was another pressing question to be dealt with. The citizens were suffering from money-lenders, and though numerous laws had been made in restraint of avarice they were evaded through the fraudulent transferring of the bills to subjects of the allied States who were not bound by these laws. In this way debtors were being overwhelmed by unlimited interest. [3] After a discussion as to the best method of checking this practice it was decided to fix a date, and all members of the allied States who had after that date lent money to Roman citizens were required to make a return of the amounts so lent, and the debtor was to be at liberty to choose under which laws the creditor might exercise his rights. [4] The appointed day was that of the Feralia, which had just been celebrated. [5] From the returns sent in it was found that the debts contracted under this fraudulent system amounted to a considerable sum, and M. Sempronius, one of the tribunes of the plebs, was authorised by the senate to propose a measure, which the plebs adopted, providing that debts contracted with members of the Latin and allied communities should come under the same [6??] laws as those contracted with Roman citizens". Translation by C.ROBERTS, *Livy. History of Rome*, London 1905. For additional examples of evasive tactics to avoid maximum interest laws, see P.J.THOMAS, *A Strategy to Avoid the Limit on Interest*, *Journal of Contemporary Roman-Dutch Law* 75 (2012), pp.96-106. Available at SSRN: <http://ssrn.com/abstract=2126546>.

⁴⁶ Livy 8.28.1. Translation by SPILLAN.

the consuls were commanded to propose to the people, that no person should be held in fetters or stocks, except convicted of a crime, and in order to punishment; but that, for money due, the goods of the debtor, not his person, should be answerable." Here Livy refers to the *lex Poetelia* of about 326. Cicero⁴⁷ says: "All *nexa* of citizens were dissolved and the practice of *nectere* ceased." Clearly, there would be little point in forming a *nexum*-contract if the creditor could not rely at all on pain incentives and could only go after the goods of the debtor. Some *nexum*-contract borrowers would "take their loan and run" if the lender could not legally imprison them or otherwise physically enforce his claim to their labor-services.

MacCormack⁴⁸ believes the new law banned only *nexum*-contracts, not the earlier (non-evasive) form of *nexum* in which enslavement was the final step in the debt-default process. However, assuming the latter type of debt-slave continued to exist after the Twelve Tables, how would the authorities distinguish or differentiate between the two types and indeed among slave origins generally? Varro⁴⁹ provides an answer: "When Gaius Poetelius Libo Visulus was dictator [313 BCE not 326], this method [the *nexus*-relationship] of dealing with debtors was done away with, and all who took oath by the Good Goddess of Plenty (*Bonam Copiam*) were freed from being bondslaves." *Hoc C. Poetelio Libone Visolo dictatore sublatum ne fieret, et omnes qui Bonam Copiam iurarunt, ne essent nexi dissoluti*. The translation of this sentence avoids dealing with some of the subtleties of the Latin text. Slaves must have been questioned by the authorities about how they had become slaves and, as Roby⁵⁰ points out, only those *nexi* were freed who swore they were "solvent". The solvency requirement would presumably exclude non-evasive *nexi* (defaulted debtors) and would involve repayment (presumably at the legal interest rate) by *nexi* to creditors by means other than providing labor power. It is dif-

⁴⁷ Cicero *On the Republic* 2.59. Translation by DE ZULUETA, *The Recent Controversy about Nexum*, p.137.

⁴⁸ MACCORMACK, *Nexi, Iudicati and Addicti in Livy*, p.354.

⁴⁹ Varro *The Latin Language* 7.105. Translation by KENT.

⁵⁰ H.J.ROBY, *Review of Greenidge, CR*, 10 (1896), p.340 and *Roman Private Law in the Times of Cicero and the Antonines*, Vol. II. Cambridge 1902, p.310. Unfortunately, my college's library was unable to obtain M.S.REVUELTA, *La gratuidad del mutuum en el derecho romano*, Jaén 1999, which includes a discussion of the meaning of *bonam copiam iurare* and of the *lex Poetelia*.

difficult to avoid the conclusion that solvent Romans (not defaulted debtors) entered servitude precisely in order to obtain bridge or productive loans. Varro thus confirms MacCormack's proposition that there were *two* types of *nexi* and more generally he confirms the (sometimes doubted) importance of oaths in Roman economic life⁵¹.

Livy's wording makes it appear that both forms of *nexum* were made illegal. The objective was to stamp out all forms of debt-slavery, not just the form used to evade the *legis actio* procedure and maximum interest rate laws. It might at least be noted in this connection that in very much later times (the 230's CE) antichretic loans calling for payment in services of real property were considered legal even if their cash value exceeded the legal maximum interest rate⁵². On the other hand, in addition to the testimony of Varro, MacCor-

⁵¹ This is a clear instance in which a preconceived notion about the structure of the Roman economy precludes a literal understanding of the Latin. Thus, A.H.J.GREENIDGE, *Infamia: Its Place in Roman Public and Private Law*, London 1894, p.208 objects: "Varro has a release only for those debtors 'qui bonam copiam jurarunt.' As no *nexus* could possibly be solvent, or be kept in servitude after he was solvent (Varro l.c. *dum solveret*), the words cannot mean 'swore to solvency'." It might be added that Varro has a habit of offering testimonies that contradict the primitivist perspective. In seeking to control the interpretation of *nexum* FINLEY, *Debt-Bondage and the Problem of Slavery*, p.159 warns, "One should not overestimate Varro".

⁵² THOMAS, *Antichresis, Hemiolia and the Statutory Limit on Interest in Gerard Noodt's De Foenore et Usuris*. There is uncertainty here. Note C.4.32.17: "If your mother gave a lien on the property [a farm] to her creditor upon condition that he should have the fruits in place of interest, the agreement, because of the uncertainty of the receipt of fruits, cannot be rescinded under the pretense that the creditor is receiving large returns." Translation by F.BLUME, *Annotated Justinian Code* 2d. ed. (no date). Available for download at: <http://uwacadweb.uwyo.edu/blume&justinian/>. Here the state's disinterest in enforcing the maximum interest rate law is explained by the "uncertainty" of the return to the creditor. In C.4.32.14 dealing with a house the issue seems to hinge on whether or not the lender transferred habitation rights to a third party: "If your wife loaned out money under an agreement that in return for interest she should have the right of habitation, and the pact is carried out as agreed, and she did not receive any rent by leasing out the house, it is not a subject for inquiry whether the house would have returned more, if leased out, than the amount of legal interest. For though a lease could have been made for greater amount, the contract for interest should not for that reason be considered as illegal, but the rent of the habitation as low." Translation by BLUME. As far as we know the *nexum* contract was not made legal either because of "uncertainty" regarding the fruits of labor services or because the services were consumed by the creditor himself, not by a third party.

mack has on his side that, as shown by Frederiksen⁵³, subsequently to the *lex Poetelia* a debtor “could still be given over to his creditor [by praetors and other magistrates] in temporary bondage (*addictio*) to work off his debt... and we hear of such bondsmen several times... But it is hard to know how great was the incidence of legal debt-bondage... [A]lso *manus iniectio* was retained as a penalty in some other laws... to express a degree of ‘social indignation’...” (references omitted). But *nexum*-contracts fade out after enactment of the law of 328⁵⁴. MacCormack is probably correct in suggesting that only the (evasive) *nexum* contract was banned.

The Twelve Tables imposed the *legis actio* procedure and maximum interest rates. Lenders and borrowers seeking to circumvent these measures relied on the *nexum*-contract whose growing popularity attracted the hostile attention of Rome’s legal authorities. The Twelve Tables represents a watershed in the behavior of Roman credit markets. There followed a cycle in which political actors intervened and economic actors innovated strange artifices as long as they were able to⁵⁵.

⁵³ M.W.FREDERIKSEN, *Caesar, Cicero and the Problem of Debt*, *Journal of Roman Studies* 56 (1966), p.129 with n.11. See also P.A.BRUNT, *Review of Westermann, Tudor and Vogt*, *Journal of Roman Studies* 48 (1958), p.168. J.-J.AUBERT (personal correspondence cited with permission) suggests: “Livy’s view is consistent with parallel development in public and private law, whereby legal arrangements that affected the make-up of society—such as debt slavery—should be controlled by the state and not left to private decision. Banning *nexum* does not mean that the *legis actio* resulting in *addictio* was no longer available, with the involvement of magistrates and social control”.

⁵⁴ It may appear, however, in lines 113-114 of Caesar’s *lex Julia Municipalis* which applied to Rome as well as to other Italian towns: “or those persons who have or shall have certified their insolvency before the praetor, or certified their solvency to escape *addictio* for debt” (*Bonam Copiam abjuravis/Bonam Copiam juravit*). Translation by E.G.HARDY, *Six Roman Laws*, Oxford 1911, p.157.

⁵⁵ For the contribution of maximum interest rate regulation to the demise of the Roman banking system, see M.SILVER, *Finding the Roman Empire’s Disappeared Deposit Bankers*, *Historia, Zeitschrift für alte Geschichte* 60 (2011), pp.301-27.