

# Price in 'Sales on Delivery'

*Roger S. Bagnall*

AMONG the more curious types of document found in the papyri of Ptolemaic, Roman and especially Byzantine Egypt is the contract whereby a party acknowledges receipt of money as the price for goods to be delivered later. Scholars have generally adopted terms like 'sale on delivery', 'sale with deferred delivery' or 'advance sale' to describe this type of text.<sup>1</sup> Such terminology, however, is not very descriptive of these documents, for their language and terminology is closely similar to that of loan contracts, not of sales, and indeed some scholars have called them loans. Over the years there has been a considerable amount of discussion of the nature and function of the transactions recorded in such texts. The most recent contribution to this debate is an article by Zola M. Packman, in which she argues a novel and ingenious hypothesis.<sup>2</sup> Thanks partly to a newly published text (*BGU XIII 2332*), however, it appears to me possible not only to demonstrate that her theory is incorrect but to reexamine the whole problem fruitfully.

The arguments presented by Packman center around fourth-century examples of the loan in cash with repayment in kind, in particular the Aurelia Tetoueis documents in the Columbia collection,<sup>3</sup> as the new text is also of the same period, I will focus my discussion also on this century. But there is in fact comparatively little change through the centuries in this type of document. I begin with a

<sup>1</sup> The bibliography is large; aside from studies specifically pertinent to the Tetoueis documents, which will be cited below, see *P.Cair.Isid.* 90, introd. (quoted below), with citation of the standard study by O. Montevecchi, *Aegyptus* 24 (1944) 131–58; *P.Rein.* II 101, introd.; and R. Taubenschlag, *Law of Graeco-Roman Egypt*<sup>2</sup> (Warsaw 1955) 336–38; also F. Pringsheim, *The Greek Law of Sale* (Weimar 1950) 268–86 and *SDHI* 24 (1958) 224–36. Montevecchi gives a list of documents; a supplement by H. Maehler appears in *BGU XII 2198* introd. To these may be added the Tetoueis documents (*infra* n.3); the new *BGU XIII 2332*; and *P.Cair.Isid.* 87–89 and 92. Some deletions from the lists of Montevecchi and Maehler are also in order; to my mind, the following do not belong: *P.Mert.* I 4; *P.Stras.* I 53; *BGU III 990*; and *P.Lond.* V 1700. It is interesting to compare the petition about a transaction of this sort published by J. Shelton as *P.Mich.* XI 615.

<sup>2</sup> *Cd'E* 50 (1975) 285–96.

<sup>3</sup> Published by John Day and Sarah B. Porges, *AJP* 81 (1960) 157–75 (whence *SB VI 9603*). The texts will be republished in the forthcoming *P.Col.* VII as nos. 182–84.

statement of as much of a *communis opinio* as may be found, the introduction by Boak and Youtie to *P.Cair.Isid.* 90:<sup>4</sup> "This type of agreement, in which a share of the anticipated harvest is sold and the price is paid several months in advance of delivery, has been widely discussed by papyrologists and jurists, but no definitive conclusion has so far emerged. It is sometimes regarded, especially when the price is not stated, as a *datio in solutum*, i.e. a cession of property in settlement of a previously existing debt, sometimes as a simple money loan of which the value is to be repaid in kind, but more commonly as a genuine sale with payment in advance of delivery. This controversy has elicited from C. B. Welles (*A.J.P.* 68 [1947] 94) a summary judgement which has every chance of being right: 'This type of document . . . has bothered the jurists who approach it from the point of view of Roman law, but the conception is Greek, and eminently sensible; payment in advance gives the farmer money to finance his crop, and in the case of wine, where the procedure is so common as to be regular, it assures him an immediate market, without even the obligation of furnishing his own containers; in Egypt, it should have been fairly easy to forecast the yield'. Welles thus justifies the view most generally held that these documents record true sales with payment in advance of delivery. It is necessary to modify this position only to the extent of admitting that the same transaction could be embodied in a loan as well as a sale."

It is important to emphasize that several interconnected questions are involved here. The first is that of the type of documentary formula employed. This is an acknowledgement of an obligation to pay something, in the language of a loan, commonly formulated in a subjective or objective *homologia*.<sup>5</sup> In one sense, therefore, the question of "what kind of text is this" is easily answered. But the most important aspect for us to understand is the motives of the two parties, for it is these, and not any formal conception of sale or loan, which determine the form of our documents.

<sup>4</sup> Similar remarks in *P.Mich.* XI 608 introd. (J. Shelton), with a good summary and bibliography. The view initially proposed by Rabel, that the texts are *dationes in solutum*, is to my mind sufficiently refuted by the arguments of the scholars cited above, and though it continues to be cited by editors of papyri, it is accepted by practically none. It rested largely on the absence of stated price in most contracts, and as a more plausible explanation of this phenomenon can be and has been advanced (*cf. infra* p.94), there is no real basis for Rabel's theory.

<sup>5</sup> Grenfell and Hunt, *P.Oxy.* XIV 1639 introd., saw already that the formula was that of a loan. Either first or third person phraseology may be used. The nature of the transaction

From the seller/borrower's standpoint, the remarks of Welles quoted above are to the point. What the farmer needed was cash to finance his crop and, indeed, his own existence until the harvest. This money would then be paid off with produce at the time of year when the farmer was most solvent. Many of the Byzantine exemplars, in fact, use such phrases as *εἰς τὴν ἰδίαν (καὶ ἀναγκαίαν) χρεῖαν μου* to describe the motive of the loan.<sup>6</sup> Welles' conclusion, however, in no way demonstrates that the transaction is to be classed as a sale, since farmers have traditionally financed their operations with loans repaid at harvest.

We have also to examine the point of view of the buyer/lender on the transaction. We may take as our starting point the question of whether the return on the loan (*i.e.* fee or interest) or the acquisition of the goods paid to him was primary.

An interesting and indicative situation is that found in three Demotic contracts from 108 B.C., which among Demotic texts fill the same purpose as the Greek texts under discussion.<sup>7</sup> The creditor is a merchant, the parties making acknowledgement of their obligation different in each case. The three contracts all seem to fall within a space of about ten days. The terminology does not help us, for it is very similar to that of the Greek, and the form of the documents is

is such as to make a loan contract the natural formula, for the point of the document is to acknowledge an obligation to pay in the future. The formula of a sale exists principally to provide the purchaser with legal title to that which he has in his possession; it would be beside the point in the case of a quantity of goods of the kind generally involved, and indeed contracts of sale for such goods are largely absent from the preserved sales (with present possession). The term *δάνειον* is in fact sometimes used by the borrowers in these texts to describe the contract with deferred delivery, *e.g.* SB VI 9569 and BGU IV 1055. In SB 9603a, what Tetoueis acknowledges at the end of the contract is the barley to be repaid, not the cash. In the face of this evidence, I do not see how the statement of the editors of *P.Cair.Isid.* 90 can be supported: "the body of No. 90 is phrased as a sale while its subscription (12-14) is suitable to a loan." This Isidoros text, in fact, like the Tetoueis ones follows essentially the formula *ὁμολογεῖ ὁ δεῖνα ἔχειν παρὰ τοῦ δεῖνα διὰ χειρὸς ἀργυρίου κεφαλαίου . . . εἰς τιμὴν . . . , ἄσπερ ἐπάναγκον ἀποδώσειν ἐν μηνὶ . . . καὶ ἐπὶ τῆς ἀπαιτήσεως γινομένης τῷ δεῖνα* (the lender) *τῆς πράξεως ἔκ τε τοῦ ὁμολογοῦντος κτλ.* The formula is precisely that of a loan in kind such as P.NYU 22 or 24 (to cite only two of numerous examples).

<sup>6</sup> For example, SB I 4504.

<sup>7</sup> These papyri were published by R. H. Pierce, *Three Demotic Papyri in the Brooklyn Museum* (SymbOsl Suppl. 24, Oslo 1972). They are reedited in the *Recueil de textes démotiques et bilingues* by P. W. Pestman, with collaboration of J. Quaegebeur and R. L. Vos (Leiden 1977), nos. 4-6 (I owe to Professor Pestman's kindness the use of this work in proof).

not decisive.<sup>8</sup> Indeed, faced with these texts and posing the question of their proper title, Pestman remarks: "Nous croyons du reste que la question que nous avons soulevée n'avait aucun intérêt pour les personnes intéressées à la transaction. Elles avaient en vue une convention de crédit et ne se sont sûrement pas demandé si leur transaction constituait un prêt ou une vente à livraison différée."<sup>9</sup> But the critical question of motives can be answered more confidently. Pestman, though admitting that the merchant's occupation might lead one to suppose that his interest was in acquiring the merchandise which would be delivered to him, points out (1) that the quantities involved are too small to be of any real commercial importance, and (2) that the merchant reserves the right to be repaid in cash rather than produce if he wishes. He concludes, "Nous penchons, par conséquent, pour la supposition que le marchand n'a pas exécuté ces transactions en vertu de sa profession, d'autant plus que nous avons des raisons d'admettre que l'initiative de ces transactions émane des débiteurs plutôt que du créancier. . . Les débiteurs se sont probablement adressés au marchand parce que dans leur communauté il a dû être un homme relativement aisé et d'une certaine puissance financière."<sup>10</sup>

We will do well to acknowledge that not *all* transactions need spring from the same motive. In a few cases we can judge that the buyer was principally interested in consuming the produce, as was the buyer of *BGU IV 1055* (Alexandria, 13 B.C.), who purchased a *stamnos* of milk a day for three months, or in reselling it, as in the case of the wineseller of *P.Flor. III 314* (Hermopolite, A.D. 428), who purchased 224 *knidia* of wine. No such interest, however, is discernible in most documents. Since one of the principal merits of Packman's approach is that it takes into consideration the motives of both parties, a summary of her argument will be useful before we proceed further:

(1) The first Tetoueis document, *SB VI 9603a*, is dated 3 February 372, yet it calls for delivery in Epeiph (June-July) of 373. A delay before

<sup>8</sup> The acknowledging party says, *dj=k n=j sw n (n) ḥd rtb sw w3d 3½*, translated by Pestman as "Tu m'as donné la valeur en argent de 3½ artabas de froment frais." This could almost be a literal translation of the typical Greek phraseology.

<sup>9</sup> Pestman *et al.* (*supra* n.7) II 38–39.

<sup>10</sup> Pestman *et al.* (*supra* n.7) II 38. Cf. the remarks of Pierce (*supra* n.7) 85–93; he is attracted by notions of speculation similar to those advanced by Packman, but he concludes that the Egyptian contract is probably an imitation of the Greek and corresponds roughly to the Greek *δάγειον*.

delivery of more than a year in such a contract is unparalleled, and in loans of commodities which are similar, only one other such period is found, also in a document dated early in 372, *P. Vindob. Sijp.* 13. The only reasonable explanation of this anomaly is the assumption that the scribes have written the wrong consulship (*i.e.*, *ὑπατείας* instead of *μετὰ τὴν ὑπατείαν*). Such scribal errors in dating formulas of this period are common.

(2) The editors, Day and Porges, took the price of barley in this document at face value and supposed a rise in price from 500 to 600 talents per artaba between February and the date of *SB 9603c*, December 372. N. Lewis, on the other hand, supposed that the price stated represents a price less interest; that is, that interest was deducted before a price was paid.<sup>11</sup> A difference of price is therefore a difference of the time for which the money was used by the borrower; the longer the period, the lower the price.

(3) If the true date of *SB 9603a* is 373, the situation is reversed from what Lewis supposed. The price is inflated by the incorporation of interest, not reduced by deduction of it. The parallel to commodity loans, where the amount that is stated as received is in fact that owed, *i.e.* with inclusion of interest, suggests that here too the amount of indebtedness is stated. This is true both for the money and for the goods to be delivered.

(4) The specification of price appears generally when there is no penalty clause, and *vice versa*. The only reasonable explanation of this phenomenon is that the two were essentially equivalent in function. The only explanation of this situation is that a sale was not legally binding until the delivery was completed, and that some provision to protect the buyer in the event the seller did not wish to make delivery was necessary.

(5) This variability of the transaction allowed a wide range of possibilities to the two parties for speculation according to their wishes, against possible changes in the value of the goods sold in advance.

Packman proceeds to elaborate on the opportunities for speculation opened up by this kind of transaction. One is forcibly reminded in reading her remarks of the operation of a modern options exchange,

<sup>11</sup> Lewis remarks briefly on the text in *AJP* 83 (1962) 185–87.

in which there is no intention on the part of most players to exercise the options, but rather that the options themselves, as hedges against price movement in both directions, are repeatedly traded. The scheme proposed by Packman allows for almost as many and as sophisticated tricks as the modern exchange.

This brief summary does not do justice to the force and ingenuity of Packman's argument, but I hope that the main lines are clear enough. Before proceeding to *BGU* 2332 I wish only to observe that this scheme is simply too ingenious. The mentality which is presupposed for the complicated financial maneuvers involved no doubt existed in antiquity, but it must have been rare, for it is alien to the ancient mind in general. It appears to me utterly impossible that a small-time moneylender in Ptolemais Euergetis could have understood this manner of doing business, let alone that a poor peasant in a Fayûm village could have made any sense of it. The economic life of the farming class was extremely simple—if often difficult—and I know of no other evidence that members of that class interested themselves in speculation.<sup>12</sup>

Even if one rejects stage (5) of the argument, as I do along with the consequences suggested in (4), the central tenet of stage (3)—that the price and amount of goods given include interest—is not thereby automatically disproved. We turn therefore to *BGU* XIII 2332, a loan of money to be repaid in kind, concluded probably in Ptolemais Euergetis on 12 November 374. The text of the critical section, lines 8–15, reads as follows:

- 8 ὁμολογῶ κατὰ τήνδε τήν  
 ἀσφάλιαν ἐσχηκέναι παρὰ σοῦ διὰ χιρὸς  
 ἀργυρίου τάλα<ν>ταν μυριάδαν μίαν διςχίλει(α)  
 ὄν[τα εἰς τ]ιμὴν οἴνου ἐντο[π]ίου
- 12 εὐαρέστου τῆ[ς ἐ]πὶ τοῦ κερο[ῦ] φανησομέν(ης)  
 τιμῆς κουφιζωμένν τὸν τρίτον·  
 καὶ ἐπάνα[γ]κον τήν ἀπόδωσίν κτλ.

The editor translates, "I acknowledge that in accordance with the present agreement I have received from you in cash twelve thousand talents of silver, being the current price of local, good wine, reduced by one-third, and I shall necessarily make the delivery..." The critical phrase for us is that in line 13, which is corrected by the

<sup>12</sup> For example, cf. M. I. Finley, *The Ancient Economy* (London 1973) 23, 110–11.

editor to *κουφιζομένης τῷ τρίτῳ*. For this the editor offers two possible explanations: “1) the price has been reduced because of the deferred delivery; that is to say, were the transaction immediately consummated, Aurelios Hol could have demanded the full price. Since it is not, he has to take a cut rate. 2) Perhaps this grain is a requisition for the army, therefore sold to it at a reduced price.”<sup>13</sup>

The answer becomes more evident if the central part of the passage is translated correctly. We must render it, “being for the price of good local wine, the price which is current at the time being reduced by the third.” From this it is evident that the price to be used is not decided upon at the time of the contract but is to be whatever is current in Mesore. A hypothetical set of numbers may be useful. Hol has borrowed from Adelphios 12,000 T. in November. In July, when the wine comes in, Hol repays the loan with wine. Wine is then 1,000 T. per *knidia*, and the money would normally buy 12 *knidia*. But because Hol must pay interest of 50 per cent, the price is reduced by a third, and Adelphios receives 18 *knidia* (worth 18,000 T.). The number of units obviously is hypothetical, but the essence of the transaction appears to me to be the only one possible given the text of the papyrus.

In other words, interest has been deducted in advance; Hol obligates himself to pay 18,000 T. on the basis of having received only 12,000 T. The situation is that suggested by Lewis for the Tetoueis documents.

This type of transaction is not common among the advance sales, and the new text is the only one to state (in the main portion) that the price is to be reduced. The other examples of the use of the current price at delivery are the following:<sup>14</sup>

*P.Gen.* 8 (Dionysias, 141), λ[αχ]ανοσπ[έρμο]υ τῆς [ἐ]σο[μ]ένη[ς]  
 τειμῆς

*SPP* III 123 (Arsinoite, VI<sub>p</sub>), τιμὴν [χόρτου τῆ τότε] τιμῆ καὶ  
 λόγῳ τόκου αὐτοῦ μηνιαίως . . . μανδάκιν

*P.Lond.* I 113, 6c (p.215) (Arsinoite, VI–VII<sub>p</sub>), hay at τῆ  
 φαινομένη τιμῆ ἀτοκεί.

<sup>13</sup> ‘Grain’ is a slip for ‘wine’ here. I would translate *ἀπόδωαις* as ‘repayment’, so also in line 25.

<sup>14</sup> I exclude several of the examples given by Montevicchi, *op.cit.* (*supra* n.l) 131–33, as being dubiously restored or interpreted.

Two of these explain what interest is to be charged; in one case it is nothing, in the other, a *mandakion* (of hay) per month. It has been established by P. W. Pestman (see n.25 *infra*) that ἄτοκος referring to a loan does not indicate that no interest was charged, but rather that no interest was charged on the amount stated, i.e., interest was included in the amount of the loan. In the London piece there was probably interest charged, but it cannot be recovered. In *SPP* III 123, the rate of interest may not have been evident until the end of the loan, since the amount of interest in kind was fixed but the principal in kind was not. *P.Gen.* 8 yields no information. The provision is in fact awkward if something to regulate interest is not put in, like that in *BGU* 2332, and in fact its use is a curious borrowing from a well-known penalty clause in contracts of this type where the amount to be repaid in kind has been specified but not the amount of money borrowed. Here the borrower, on default, must pay the cash value of some multiple (usually 1.5 or 2) of the sum of produce, the value being determined by that current at the time of default.<sup>15</sup> In this situation, the use of the then-current price is a convenient means of providing an equivalence which does not openly show usurious tendencies, where the lender's profit is already secured by the size of the penalty. In the main body of the contract, however, it is difficult to manage unless one wishes, as in the new Berlin text, to reveal indirectly the use of a usurious rate of interest, and most lenders did not want the rate revealed.

We may note that a phrase somewhat similar to that about reduction of price occurs in a penalty clause in *PSI* III 239: ἐὰν δὲ μὴ, λ. . . . αἰ με τὸ ὑπόλ(οιπον) τῆς τιμῆς κατὰ τὴν φανησομ(ένην) τιμὴν, καὶ ὥστε ἐμὲ παραχωρησαί σοι ἐκ τῆς τιμῆς νομίμ(ατος) τρίτον. That is, an unpaid amount of produce would be repaid in cash with the cash reduced in accounting by a third of its value; the true interest rate would be then 50 per cent as in the Berlin text.

When we return to the Tetoueis documents, we notice that they—like such documents generally—state consistently the amount to be repaid but are not consistent about giving the amount borrowed. In the case where the amount borrowed is not stated (*SB* 9603c), the amount to be repaid is the only amount given in the contract. (There

<sup>15</sup> Examples of this phraseology may be found in *P.Mil.* 4 and 5 (1.5x original); *SB* VI 9569; *P.Osl.* II 43 (both 2x plus interest); *P.Hamb.* I 71 (1.5x); *SB* III 7175 (2x); *P.Hamb.* I 21 (2x).



is no penalty clause.) I take it, therefore, that this is the true amount to be delivered.<sup>16</sup> Now ‘advance sales’, other than those where only the money amount is stated (discussed above), divide into those where only the amount in goods to be delivered is given and those where the price is also stated; the ratio is about 5–2 between these types.<sup>17</sup> In the former, as in *SB 9603b*, we must accept that the amount of goods to be returned is the true amount of the contract. Scholars have long been suspicious of the reticence of these texts about how much cash was advanced, and with reason. The documents try too hard to emphasize that the price was fair and agreed-upon. The standard Byzantine formula is *τῆς τελείας καὶ ἀξίας τιμῆς*, and some variants are stronger; common is the inclusion of some form of *συμφωνέω* to indicate mutual agreement. Cf. *P.Select.* 2 (III/IVp): *τὴν μεταξὺ συμφωνηθ[εῖσαν] καὶ συναρέεασαν πρὸς ἀλλήλους τιμῆ<ν>*. One’s suspicions are also increased by *P.Athen.* 24 (Arsinoite, A.D. 283), where the amount is stated, and it is called *οὔσας λοιπὰς τιμῆς κριθῆς ἀρταβῶν τριάκοντα*. (A similar phrase is found in *P.Bad.* 25.) One asks, ‘balance’ after what? Deduction of interest is the natural response, considering *BGU 2332*.

When one turns to the transactions where the price is given, one is struck, in those cases where one can judge from good contemporary parallels,<sup>18</sup> by the low prices paid; these also point to a deduction of interest before the amount is stated. Some examples are *P.Corn.* 2 (Philadelphia, 249 B.C.), where the editors conclude that the profit over fifteen months must have been nearly 100 per cent; *P.Mich.* XI 608, where 4 *solidi* buy 18 artabas of barley, 18 of wheat, 4 of vegetable seed and 200 jars of wine; and *P.Michael.* 35, where a *solidus* (of 22½ carats) buys 20 artabas of wheat. The editor of this last text was led

<sup>16</sup> Packman argues that paragraph 104 of the Gnomon of the Idios Logos (*BGU V 1210*), [ἀ]πρὸ γνηθια γενήματα οὐκ ἐξὸν πωλεῖν ο[ὐ]δὲ γένημα ἀνεπίγραφον, indicates that these sales in advance were not really concluded until delivery and might legally be abrogated, hence the penalty clause. The evidence of *SB 9603b* suggests the contrary, and in fact if one takes these contracts to be essentially loans, as I do, then a prohibition against sale of unharvested crops is irrelevant.

<sup>17</sup> The figures are based on analysis of the documents cited by Montevocchi and Maehler, cf. *supra* n.1.

<sup>18</sup> It is impossible to judge prices in sales of wine—the majority of the Byzantine examples—with certainty, because so many grades of wine can have existed, with widely disparate values. Cf. L. Casson, *TAPA* 70 (1939) 15–16. All the same, it is interesting that Casson’s examples for the cheapest grade (i.e., the lowest prices paid) all come from loans in money with repayment in wine, except *P.Cair.Masp.* II 67145 and 67146 where, *pace* Casson, it seems that (compulsory) government purchases were involved.

by the enormous amount purchased (twice what a *solidus* would normally buy) to see his text as "a means of avoiding the law limiting interest."<sup>19</sup> There is, then, at least some reason to believe that usury was the prime motive of the lender in many documents, regardless of whether price, goods to be delivered, or both were specified.

We can now summarize the types of transactions involved in the Tetoueis documents and the new Berlin text: (1) loans in kind to be repaid in kind with interest of 50 per cent;<sup>20</sup> (2) loans in money to be repaid in kind, with both amounts specified but not the interest; (3) loans in money, amount specified, to be repaid in kind at a price not specified but reduced by a third; (4) loans in money, with amount not specified, to be repaid with a fixed amount of produce. The essential feature which links the last three groups, I think, is the absolute avoidance of any statement that one party is paying so much interest. From what has been said about other similar documents, it is surely the case that this reticence is owed to the fact that the rate being charged was illegal in a loan of money, namely 50 per cent. We know that the *hemiolia*, the rate of one-half interest (or charge, perhaps, since it is not an annual rate) on loans in kind, was very common in Egypt through the centuries.<sup>21</sup> At the same time, we know that the Ptolemies and then the Romans tried to limit the interest that might be charged on loans of money; the figure in the Roman period was 12 per cent.<sup>22</sup> But there are abundant examples in the papyri of a willingness to borrow at a higher rate and, in fact, of a severe imbalance between demand for cash at 12 per cent and availability. Why should one lend money at 12 per cent when one could buy wheat and lend it at 50 per cent? And in the fourth century, why should one lend at 12 per cent when inflation might cost one a substantial part of the sum even in the course of the year?<sup>23</sup>

<sup>19</sup> Similar views about the tendencies of 'advance sales' may be found in Montevicchi, *op.cit.* (*supra* n.1) 138ff; see *P.Mich.* XI, p.22, n.2 for further citations of such views.

<sup>20</sup> Besides the Columbia texts, see *P.Mert.* I 37, *P.NYU* 24, and *P.Osl.* II 38, with corrected version in H. C. Youtie, *Scriptiunculae* I (Amsterdam 1973) 250–51 (*SB* VI 9311).

<sup>21</sup> See for a thorough and illuminating discussion N. Lewis, *TAPA* 76 (1945) 126–39; the remarks of E. Seidl, *Daube Noster* (Edinburgh/London 1974) 301–03, are interesting for the earlier period. *C.Th.* 2.33.1 permits the *hemiolia* type of loan only for loans in kind; cf. K. Visky, *Acta Antiqua* 18 (1970) 342.

<sup>22</sup> For bibliography see Shelton, *op.cit.* (*infra* n.26) 157.

<sup>23</sup> See R. S. Bagnall and P. J. Sijpesteijn, *ZPE* 24 (1977) 111–24, for the course of prices in the fourth century.

The loan of money to be repaid in kind is, I suggest, the answer to these questions, especially in the fourth century, when this kind of text for the first time became very common.<sup>24</sup> For the lender there was the security of the crop, a good rate of interest, and repayment in a non-depreciating commodity. For the borrower there was at least relatively easy access to cash which would be inaccessible at 12 per cent and illegal at a higher rate. It was easy to obey the letter of the law in this way: no interest was being charged in money. This type of contract, in fact, is capable of concealing almost any interest in the price; the absence of a statement of the amount of interest in these documents is natural. Somewhat the same phenomenon is no doubt involved in the use of contracts of loan of money where the sum lent is described as *ἄτοκος*. P. W. Pestman's penetrating study of these loans leaves no doubt that this phrase means that the interest is already included in the amount of money stated as having been borrowed; no interest is due on the stated amount precisely because interest, at an unstated rate, has already been added in.<sup>25</sup> A fine example of the functioning of these contracts was recently published by John Shelton; in a fourth-century Karanis document from the Michigan collection, a loan is stated to be *ἄτοκος* in the body of the loan, but the docket (this is presumably the lender's copy) gives an amount a third less as being the principal, *κεφάλαιον*.<sup>26</sup> Nothing on the borrower's copy indicated that an interest rate of 50 per cent was being charged.

The contract of loan in money with repayment in kind, then, is most correctly to be seen as one of the manifestations of the ingenuity of the population of Roman Egypt in avoiding laws which were wholly contrary to actual conditions.<sup>27</sup> But while one may admire this ingenuity, the conditions which made it necessary are anything but laudable. The perennial shortage of capital and the continuing inflation which helped make this contract profitable are not earmarks of economic health and stability. Worse still, one may suspect that these loans form part of a worsening cycle of economic dependence

<sup>24</sup> The chronological distribution of those loans which can be dated is as follows: IIIa, 3; IIa, 1; Ia, 6; Ip, 5; IIp, 8; IIIp, 7; IVp, 17; Vp, 3; V-VI p, 2; VI p, 27; VII p, 10; VI-VII p, 5.

<sup>25</sup> *JJurPap* 16-17 (1971) 1-29.

<sup>26</sup> J. C. Shelton, *JJurPap* 18 (1974) 158-60. Shelton had presumably not been able to see Pestman's article (preceding note), and he took *ἄτοκος* at face value; he was therefore puzzled by the verso.

<sup>27</sup> Cf. in another area of life the remarks of H. C. Youtie, *Le Monde grec, Hommages Cl. Préaux* (Bruxelles 1975) 739-40.

of the farming class on the wealthy. In the case of Aurelia Tetoueis, it is suggestive that she borrowed 18 artabas of wheat from Aurelia Kottine in September 373 to be repaid with 27 artabas in Pauni (June–July) the next year (*P.Mert.* I 37); but in late 374, Tetoueis borrows 27 artabas from Kottine to be repaid with 40½ in the following year. A consistent willingness to pay interest of 50 per cent, or more accurately perhaps an inability to do otherwise, whether in money or in kind, and a pyramiding of such debts, are symptoms of the increasing desperation of the small farmers; Karanis was certainly a dying village in this time.<sup>28</sup> Our pattern is one of dependence.<sup>29</sup>

COLUMBIA UNIVERSITY

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<sup>28</sup> On the death of Karanis see R. Rémondon, *Atti XI Congresso Int. di Papirologia* (Milano 1966) 139 n.5, and H. Geremek, *Karanis, Communauté rurale de l'Égypte romaine* (Arch. Filolog., Wrocław/Warsaw/Krakow 1969) 6–7 n.6. The latest datable document from Karanis is now P.Hafn. inv. 318, published by A. Bülow-Jacobsen and S. Ebbesen in *Five Copenhagen Papyri* (Univ. of Copenhagen, Cahiers de l'Institut du Moyen-Age Grec et Latin 6, Copenhagen 1971) p.27, dated to 439; but there are no datable papyri in the sixty-five years preceding this text, and indeed the Copenhagen text seems to me to sound the absolute death-rattle of the village. Cf. now a loan of cash with repayment in wheat from Karanis, dated A.D. 377, *ZPE* 24 (1977) 140–42.

<sup>29</sup> I thank Zola Packman and William Brashear for letting me see the contributions discussed here in advance of publication.