

Ptolemaic governance and transaction costs

for:

Transaction costs in the ancient economy

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In this paper I study Demotic Egyptian legal instruments in the Ptolemaic period, focusing on one type of contract, the so-called witness-copy contract in which a certain number of witnesses wrote out a full copy of the contractual agreement drawn up by a professional scribe. This type of Egyptian contract has been well studied by Depauw (1999), and the decline in the use of this form of agreement has been explained as related to the relative cost of drawing up the document compared to other forms of contracts, and specifically to the cost of increased labor and material costs relative.¹ It surely used up considerably more papyrus and scribal time. The costs of these are unknown, but even if papyrus was inexpensive, writing two large documents, it is supposed, must have cost more than writing one of them.² I offer support for this idea of decline in the use of the longer form by setting Egyptian contract making within the framework of Transaction Costs Economics (TCE).³ But I shift the focus away from labor and material cost (both of which are not easy to measure) and concentrate on enforcement costs. TCE has been commonly used in the modern analysis of transactions but it equally, *mutatis mutandis*, has a valid place in understanding contracting and governance in the ancient world.

There are several important observations in the TCE literature that are relevant for understanding contracts in an ancient economy. Among them are the fact that the costs of transactions were positive, planning for contingencies regarding future events was difficult, there were problems in mutual description of the world between the contracting parties, i.e. the “bounded rationality problem,” and, finally, that it was difficult for a third party enforcer to determine the exact nature of an agreement.⁴ The structure of governance, then, matters for lowering the cost of contracting. Ancient Egyptian

contracts show a long evolution from the 8th century BC onward as Brian Muhs discusses elsewhere in this volume. The witness copy type of contract is one such contract with a long history that became obsolete in the third century BC. I argue here that Ptolemaic governance of Egyptian contracts is the explanation behind this desuetude.

The witness copy document

An ancient method of validating private agreements in Egyptian law involved witnesses to the agreement writing out a copy of the contract after the professional scribe had recorded the main text. There are thirty examples of this contract type, the first dating to the very beginning of the use of Demotic in 644 BC. The last example is dated 213 BC, and most of the examples are bunched together between the mid 4th and mid 3d century BC. These documents were part of the temple-based scribal tradition, perhaps originally a Theban scribal tradition specifically, that continued in the Ptolemaic period. One family archive from Edfu (*P. Hausw.*) preserves three examples of the third century BC. The lumping of the evidence in Upper Egypt may simply be the product of archive preservation of course. But the texts contrast with the preponderance of private contracts from the Ptolemaic period in being large texts with several copies of the contract written side by side.

More normative types of contract, however, simply listed the names of sixteen witnesses on the back of the main text of the agreement. The witness lists names were sometimes written in the hand of the witnesses themselves. At other times, they appear to have been written in a single hand, presumably by the scribe of the instrument. This raises an important if still unanswered question, how were the witnesses to contract related to the parties to the contract? The large number of witnesses probably served as a

means to publicize the agreement. The majority of the witness copy documents also have a full list of witness names on their versos. It is right to think of these contracts as designed to impress.⁵ The continuing use of the older witness copy form is probably to be explained by a cultural preference and the conservative nature of recording contracts in general. The securitization of these kinds of contract by the community, represented by the scribe who was authorized by a local temple, and the witnesses to the agreement, is, in my view, an indication of state weakness. The Egyptian contracts, in other words, emphasize self-help. Public witnessing of contracts was an essential element of their validity even in the Ptolemaic period. But the Ptolemaic system was more centralized and bureaucratic, attempting to remove, not fully successfully, some of the patrimonial features of the ancient Egyptian state. That process of centralization included registering and adjudicating disputes within the new state system, and new forms of public contract written by the *agoranomos*, a state-authorized notary scribe.

There have been many explanations for both the large number of witnesses to Egyptian contracts and specifically the reasons for copying out the text that the professional scribe had written. Copying the text of the professional scribe may have functioned as one method of instruction for younger scribes.⁶ The copying out of the text might have also served as a measure of additional validation of the agreement. Demotic contracts, although they show regional variety and even the personal preference of the scribe, were, as far as the evidence permits, essentially standardized throughout Egypt in their structure, i.e. in the legal formulae and so on (Zauzich 1968). Normative, formal contracts in the Ptolemaic period drawn up by temple scribes were generally long and narrow, but more informal agreements in much shorter format could also be drawn up.

We know nothing about relative costs but it is generally presumed that the long formal contracts were more expensive. I myself see no reason to make this presumption; there is no evidence as far as I know that labor of any scribe was calculated per time. Written records of contracts really do appear to have been a feature of everyday life of Ptolemaic Egypt. We have not just a large number of actual contracts, but an even greater number of contracts documented in secondary ways, e.g. the archival registers of contracts summarized by local records offices.⁷

Moreover, in some cases low-level temple servants used private instruments for the sale of very small plots of land. That would suggest that such instruments were widely used.⁸ Certainly the formal contracts were more likely to have been drawn up when real property was the subject of the transaction. Land sales, for example, were generally elaborate documents of the so-called broad type, consisting of a few very long lines that produced remarkably large texts. In one case, a sale document that included both the sale and cession, and five witness copies of each, was 4.3 meters in length with.⁹ Yet other contracts from the same family archive from Edfu, in one case even written by the same scribe in the same year, are normative sales and not witness copy documents. One attractive idea suggested by Depauw (1999:102) is that in some cases, stronger family ties between the parties influenced the choice of witness copy or normative contract. Stronger social ties did not require stronger securitization. This fits nicely with the idea that witnessing and self-help were vital aspects of securing transactions in Egyptian law. Could it be that we are dealing with different types of transactions, in some cases first time sales in other cases secondary transfers?

Contract costs

The full analysis of transaction costs would require us to know about the ex ante cost of how the bargaining between the parties, including information costs, the costs of drawing up the instrument, and the costs of enforcing the agreement ex post. We do not have such information from the Ptolemaic period. It is unclear to what extent Ptolemaic governance altered ex ante instrumental costs. In some areas of private contracting, bargaining “in the shadow of the law” increased.¹⁰ The sale tax, for example, which was originally 5% increased to 10% of the value by 171 BC.¹¹ Scribal fees had to be paid and witnesses to the agreement may also have been paid.¹² Costs associated with the litigation in terms of time and money, the writing of petitions all of these added to the cost of transactions even if we can only measure them qualitatively.

The Ptolemaic state

The historical context of the formation of the Hellenistic states was the increasing commercialization of the Mediterranean, increased competitiveness between states, including war, and the introduction of new fiscal institutions into local economies. The most important of these were banks and coinage. Bureaucratic centralization and new state institutions, including the bureaucratic structure itself, took time to establish. Economic change, to borrow from Jack Goldstone, was not linear nor was the switch from Demotic to Greek language contracts. The Ptolemies brought to the new state a different mentality than had existed before, driven by the engine of war but contained by the institutional history of Egypt. The “structural tension” (Bingen) created by the co-existence of new state fiscal institutions and ancient macro-social patterns also created a

transaction cost gradient between an increasing hellenized bureaucracy and an ancient form of contracting. Cheaper and more efficient contract forms existed alongside more archaic forms, and Demotic existed side by side with the Greek language as the two languages of contract. Gradually, however, the bilingual family archives disappear (Clarysse 2010) and Greek dominated as a language of contracts. Yet Demotic persisted, at least in a couple of towns into the Roman period. The decline in the use of witness copy texts should be viewed through the broader framework of the incorporation of demotic instruments into Ptolemaic governance. And, more importantly, it marks an important shift in governance. Increasingly, the Ptolemaic state served as third party guarantors of contract and in adjudication of disputes.

Demotic contracts and their (slow) evolution

Several hundred private contracts (sales, leases, loans) written in demotic Egyptian survive from the Ptolemaic period. They represent a tradition of contract making that dates back to the Saite Dynasty (664-525 BC) when the demotic language and script were introduced as the standard language of administration and of contract. Demotic contracts continued to be used in the Ptolemaic period by those associated with Egyptians temples in parallel to newer Greek forms.¹³

It has been argued that the Demotic language in legal contracts represents a conservative, standardized, highly formal writing system, consistently filtering out, for example, Greek loan words that were likely to have been a part of the spoken language.¹⁴ This cautious, temple-based carrier of Egyptian civilization, universalized as the script of state power under the Saite kings in the 7th and 6th centuries BC, existed side-by-side with Greek, the new language of state power. "Demotic behaves as if," John Ray argued,

"Greek hardly existed." Scribal practice was conservative. Thus the real Demotic sale contract, conveying property rights from one party to another, preserves this older conception of sale, with heavily redundant formula, as two transactions (acknowledgement of receipt of price by the purchaser, cession of rights and promise to defend title by vendor).

The Egyptian language, Egyptian culture and Egyptian contractors did not vanish. Rather, as John Ray has cogently argued (1994a:255), the "ruling classes," in which Egyptians increasingly played important roles, adopted Greek, and this altered how contracts were made and recorded. The boundaries between Greek and Demotic contracts were not rigid. Egyptian scribes certainly occasionally borrowed new language from Greek contracts. "Yours is the approach to the property, *both coming and going...*" one of the final clauses at the end of a cession instrument, for example, (P. BM 10616, Fayyum, 244/243 BC; Glanville 1932:160), translated into demotic Egyptian the Greek phrase εἰσοδος καὶ ἔξοδος. This was no doubt borrowed from standard phraseology in Greek property sale contracts, but not, apparently, widely. The introduction of the phrase into this demotic text may be merely scribal preference under the influence of Greek practice. The mention of a "trustee" (demotic *ṛbt*), a third party who kept a contract in his possession to ensure the enforcement of a contract, while specifically only documented in a few instances, was a regular feature of Greek contracts. Contracts were kept by a third party, the *sungraphophylax*, or *sumbolophylax* in the case of official contract like tax farming agreements¹⁵. Third party securitization was also a standard feature in certain types of labor contract and agreements to make payments to the state (de Cenival 1973). The popularity of autograph confirmations in Demotic texts, a

tradition that goes back to the seventh century BC, during the second century BC appears to mirror their popularity in Greek contracts of the period.¹⁶

Moreover, at least some Demotic contracts reflect an increase in market activity. One famous third century BC text provides us with details of the purchase of priestly offices and real property, probably seized by the state, by the auction process.¹⁷ A Demotic property transfer document formerly in Boston and now in Berkeley dating to 175 BC shows that in this case a considerable amount of land had been purchased (in the main purchased jointly with others), some specifically referring to the public auctions as the means of acquisition by a man before being subsequently transferred to his son.¹⁸ As so often with documentary papyrology, drawing wider conclusions from one text is impossible. The Berkeley text gives the impression of a market in real property, beyond intra-family transfers, and a market created in part by the use of public auctions. The problem is, we cannot know how extensive the market alienability of land was. Despite the appearance of openness and a “free market,” public auctions do not necessarily imply openness. Indeed, there is good evidence that auctions were used as another method of assigning

New types of contracts written in Demotic also appear. One of the most intriguing is represented by a group of four Demotic documents, part of an archive a merchant living in the environs of the ancient Egyptian capital of Memphis. These texts have been interpreted in various ways, some arguing that they are loans, some that they are grain sales with deferred delivery.¹⁹ The former is well documented in both languages, the latter much more so in Greek. These contracts were written in Demotic and drawn up by scribes attached to a temple of Anubis at Memphis, with many similarities also to Greek

contracts. There were also Greek features of these contracts, among which was the insertion of a clause of mulct, burnt offerings paid to the king, in the case on non-performance. This was clearly a source of revenue introduced by the new Ptolemaic system (Pierce 1972:159-78). The introduction of this clause by Egyptian scribes, Pierce argued, served to equalize legal conceptions of contract enforcement between Greek and Demotic legal instruments. To be sure, such new forms of contract were the result of the monetized environment of the Ptolemaic economy, and perhaps reflect a growing market in credit.

The underlying institutional structures of private contracting in the period were developments and extensions of major changes in the governance of Egypt, and developments in Egyptian law that began in the seventh century BC and continued under Persian rule beginning in the late sixth century. Brian Muhs provides elsewhere in this volume (pp. xxx-xx) a general sketch of the history and the developments of Egyptian contracts from the New Kingdom to the Saite period.²⁰ From the 8th century BC private agreements were increasingly recorded in writing. The Demotic script was imposed on the whole of Egypt by the Saite re-centralization of the state. The rapidly written, highly cursive Demotic script, really a kind of shorthand, was developed precisely to record private agreements. By the middle of the fourth century BC the demotic sales contract was fully developed, with much more specific boilerplate contractual clauses.²¹ Changes in the Ptolemaic period, the addition of exact day dates to the contract, the registration dockets at the bottom of the text, are attributed to Ptolemaic bureaucratic demands.

Bureaucratization and governance structure

The new Ptolemaic dynasty governed Egypt in Greek, beginning in the late fourth century BC, and introduced (some) new institutional arrangements, but it did not actively displace older institutions. The Ptolemaic state was a hybrid. Within Egypt itself, it was a pharaonic state (i.e the ancient administrative structure was maintained) increasingly administered in Greek. Egypt had been partially bureaucratized for some two thousand years before the Ptolemies, the most elaborate, it appears, during two imperial phases, the New Kingdom (c. 1550- 1069 BC) and the Ptolemaic period (305-30 BC).²² Military structure, with its own bureaucracy, and war are two important factors in bureaucratization and of state formation. A third is the cost of the policing of state agents.

Monitoring costs in Egypt were comparatively low because of the ease of communication along Nile river, but there were limits to it, and patrimonialism (the use of local elites with a tendency toward inheritance of office) was not displaced by early Ptolemaic governance because there were not enough Greek-writing scribes.²³ Demotic, its local scribal traditions and the resolution of disputes arising from written contracts through the local temple, therefore, remained important both for government record keeping and for recording private transactions. In large part this bilingual administrative system resulted from the need for administrative manpower and from Ptolemaic policy that kept Egyptian temples, with their priesthoods and their distinctive scribal traditions, a central part of the new ruling coalition *tout court*.

But over the course of Ptolemaic rule in Egypt, the Greek-speaking state bureaucratic structure increasingly dominated local power structures centered in the local temples. The Ptolemaic state is especially important historically because of its

bilingualism and its longer-term impact on economic and legal structures in Egypt. In terms of bureaucratization, it is perhaps telling that the title of the official in charge of the administration of a nome, Egypt's basic, ancient administrative district, was the *strategos*, a Greek term for a military commander. At first these officials were part of a separate military structure, in charge of military affairs in their districts. Gradually the *strategos* took on civil powers, and played a key role in local governance, including the adjudication of disputes. That began an important shift in Egypt. The cost of transacting affected the form of written contract as well as its governance structure.

Conclusion

I have examined one type of Demotic contract, the so-called witness copy contract. This was an old form of recording agreements that dates back to the 7th century BC. Demotic, a script that originated in the Delta, was developed, in part at least, to record contracts more efficiently. By the 4th century BC the standard contractual form and legal clauses were fully developed. Although the ability to measure the variables of transaction costs remain problematic in modern as well as ancient economies, some qualitative observations are possible.²⁴

Under Ptolemaic governance, these contracts underwent changes that incorporated them into the registration and adjudication system. That process of bureaucratizing the Egyptian legal tradition gradually, I have argued, pushed out more archaic, less secure forms of recording transactions. One explanation for such a shift lies in the security and the enforcement of transactions. If we are right in understanding that the use of large number of witnesses (sixteen was the standard in sales) and witness copy texts in the Demotic legal tradition was a mechanism designed to increase security in the

agreement then the decline in the system can be traced in the internal economic and bureaucratic developments of the Ptolemaic state, which was stronger in securing private transactions at lower cost. It was not, then, a matter of the costs of drawing up the instrument but the enforcement costs of the transaction itself. Other features could be brought in as further evidence of the increase in the predictability and trustworthiness of the system. To be sure the path dependence of older forms of contract and their enforcement, and the choice of language based on personal preference, were strong forces in the period. Change came slowly. But the "Greek millennium" that would last for a century after the Islamic conquest was well on its way.

The evidence of the papyri from Ptolemaic Egypt, sometimes considered parochial, providing only glimpses of small rural village life, in fact reflects the enormous socio-economic changes in the Mediterranean world during the last four centuries BC. The Egyptian contracting system became incorporated into the new Greek-based Ptolemaic structure of governance gradually, including their registration, enforcement and adjudication. This was a world in which many ancient institutions, cultures and ideas were shaped by and expressed in Greek. It was a world that gave us the *koine* Greek Septuagint and the New Testament. Egyptian ideas too were expressed in Greek, as the trilingual priestly decrees (e.g. the Rosetta Stone) show.²⁵

The story of the spread of Greek as a universal language can also be told through the economics of transactions and the bureaucratization of Egypt. Greek's spread had long-term consequences. The fact that Greek language dominated the language of contract in the Roman period is shown by the paucity of demotic language contracts in the Roman period and by the fact that Coptic was not much used as a language of

contract until after the Islamic conquest. Furthermore, Coptic legal texts do not reflect a direct link to the Demotic legal tradition but to "formulas...derived from the late antique Graeco-Roman legal practice found in the documents drawn up by professional notaries in Greek."²⁶

Works Cited

Bagnall, Roger S. (2011). *Everyday writing in the Graeco-Roman East*. Berkeley:University of California Press.

Burkhalter, Fabienne (1996). "Symbolophulax," in *Archives et sceaux du monde hellénistique*. BCH Suppl. 29. Ed. Marie-Françoise Boussac and Antonio Invernizzi. Paris. Pp. 293-301.

Clarysse, Willy (2000). "Ptolémées et temples," in *Le Décret de Memphis: colloque de la Fondation Singer-Polignac à l'occasion de la célébration du bicentenaire de la découverte de la Pierre de Rosette : Paris, 1er juin 1999*. Ed. Dominique Valbelle et de Jean Leclant. Paris. Pp.

_____. (2003). "The Archive of the Praktor Milon," in *Edfu, an Egyptian Provincial Capital in the Ptolemaic Period*. Ed. K. Vandorpe and W. Clarysse. Brussels. Pp.17-27.

_____. (2010). "Bilingual papyrological archives," in *The multilingual experience in Egypt, from the Ptolemies to the 'Abbasids*. Ed. A. Papaconstantinou. Farnham: Ashgate. Pp. 47-72.

Depauw, Mark (1999). "Demotic witness-copy-contracts," *Revue d'Égyptologie* 50: 67-105.

_____. (2000). *The archive of Teos and Thabis from early Ptolemaic Thebes*. Turnhout: Brepols.

_____. (2004). "Autograph Confirmation in Demotic Private Contracts," *Chronique d'Égypte* 78: 66-111.

De Cenival, Françoise (1987). "Répertoire journalier d'un bureau de notaire de l'époque ptolémaïque en démotique (P. dém. Lille 120)," *Enchoria* 15: 1-9.

Ellickson, Robert C. (1991). *Order without law. How neighbors settle disputes*. Harvard: Harvard University Press.

Kiser, Edgar and Yong Cai (2003). "War and bureaucratization in Qin China: Exploring an anomalous case," *American Sociological Review* 68/4: 511-39.

Lewis, Naphthali (1989). *Papyrus in classical antiquity. A supplement*. Brussels.

Macher, Jeffrey T. and Barak D. Richman (2008). "Transaction cost Economics: An assessment of empirical research in the social sciences," *Business and Politics* 10/1, Article 1: <http://www.bepress.com/bap/vol10/iss1/art1>

Mann, Michael (1986). *The sources of social power*. Vol. 1. Cambridge:Cambridge University Press.

Manning, Joseph G. (1997). *The Hauswaldt papyri. A third century family dossier from Edfu*. Demotische Studien vol. 12. Sommerhausen:Gisela Zauzich Verlag.

_____. (2003). *Land and power in Ptolemaic Egypt. The structure of land tenure*. Cambridge:Cambridge University Press.

Menu, Bernadette (1988). "Les Actes de Vente en Égypte ancienne, particulièrement sous les Rois kouchites et saïtes," *Journal of Egyptian Archaeology* 74:165-81. Reprinted in *Recherches sur l'Histoire juridique, économique et sociale de l'ancienne Égypte*. II. Cairo:Institut français d'Archéologie orientale, 1998. Pp. 305-23.

Monson, Andrew (2012). *From the Ptolemies to the Romans. Political and Economic Change in Egypt.*, Cambridge:Cambridge University Press.

Moonkin, Robert H and Lewis Kornhauser, (1979). "Bargaining in the shadow of the law:The case of divorce," *Yale Law Journal* 88:950-97.

Parker, Richard (1964). "A Demotic property settlement from Deir el Ballas," *Journal of the American Research Center in Egypt* 3:89-103.

Pestman, P.W. (1977). *Recueil de textes démotiques et bilingues*. 3 vols. Leiden:E.J. Brill.

Pierce, Richard Holton (1972). *Three demotic papyri in the Brooklyn Museum. A contribution to the study of contracts and their instruments in Ptolemaic Egypt*. Symbolae Oslonenses, Supplement vol. 24. Oslo:Universitetsforlaget.

Ray, John (1994a). "How demotic is demotic?" in *Acta Demotica. Acts of the Fifth Internatiuonal Conference for Demotists, Pisa, 4th-8th September 1993*. Pisa:Giardini Editori e Stampatori. Pp. 251-64.

_____. (1994b). "Literacy and language in Egypt in the Late and Persian Periods," in *Literacy and power in the ancient world*. Ed. Alan K. Bowman and Greg Woolf. Cambridge:Cambridge University Press. Pp. 51-66.

Richter, Sebastian T. (2008). *Rechtssemantik und forensische Rhetorik*. Wiesbaden:Harrassowitz.

Skeat, T.C. (1982). "The length of the standard papyrus roll and the cost-advantage of the codex," *ZPE* 45:169-74.

Zauzich, Karl-Theodor (1968). *Die Ägyptische Schreibertradition in Aufbau, Sprache und Schrift der demotischen Kaufverträge aus ptolemäischer Zeit*.

Wiesbaden:Harrassowitz.

¹ Depauw 1999:87.

² Skeat 1982; Lewis 1989. See the excellent remarks by Bagnall 2011:134-35.

³ On TCE, see Macher and Richman 2008.

⁴ Macher and Richman 2008:3-4.

⁵ Thompson 1994:80-81; Depauw 1999:88.

⁶ Thompson 1994.

⁷ Bagnall 2011:36. *P. Tebt.* III/1 815, *CPR* XVIII. For a demotic register, see de Cenival 1987.

⁸ *P. Hausw.* See further Manning 2003.

⁹ *P. Hausw.* 10.

¹⁰ Moonkin and Kornhauser 1979. This is one of the major points of Ellickson 1991. There are also of course costs associated with unwritten agreements within “trust networks” inside of villages. How we can get at the issue I am unsure, but the coming of large numbers of Greek to Egypt, and the settling of soldiers in Egyptian villages in particular must have greatly impacted these trust networks, and perhaps shaped the legal landscape in new ways.

¹¹ Depauw 2000:63.

¹² I have suggested some time ago, Manning 1997:5 n. 16, that the mark next to the witness name on the verso of witness copy text may have been an indication of their payment. The mark can be read as “receipt.” I have no explanation why the scribe would so indicated on the contract, but much remains obscure about the entire process of drawing up and witnessing a contract

¹³ For a good outline of demotic contracting in the Ptolemaic period see also Monson 2012.

¹⁴ Ray 1994a; 1994b.

¹⁵ Burkhalter 1996.

¹⁶ Depauw 2004:xxx.

¹⁷ *P. Eleph.* 14. The text was found with a group of Greek and Demotic texts now known as the Milon archive, for which see Clarysse 2003.

¹⁸ Parker 1964. Formerly known as *P. BMFA* 38.2063b now in Berkeley and referred to as *P. Hearst* 7.

¹⁹ See Pierce 1972; Pestman 1977.

²⁰ On the evolution of Demotic contracts, see also the fundamental analysis of Menu 1988.

²¹ The first certain full form of sale and cession to my knowledge is *P. Inv. Sorbonne* 1276 + 1277, dated 343 BC, published by de Cenival 1972.

²² On partial bureaucratization, see Kiser and Cai 2003.

²³ Cf. Mann 1986:170.

²⁴ Macher and Richman 2008:40-41 on the problem of measuring costs.

²⁵ On the arguments of the priestly decrees Greek being the first language of these decrees, which were then translated back into Egypt, see Clarysse 2000.

²⁶ Bagnall 2011:114 referring to Richter 2008.