Abstract: While Classical sources, especially Herodotus, have proved to be of little value for reconstructing the Persian government’s multiple ways of extracting material resources and manpower from the province of Babylonia, cuneiform texts contain ample pertinent information. Basing itself on recent research (summarised in Jursa 2010a and 2011), this contribution presents a brief survey of the status quaestionis and then places its focus on anecdotal information and quantitative data that can be brought to bear on the issue of the impact of the taxation system on the overall socio-economic situation in Babylonia. Discussion will be limited to the best-documented period, from the Persian conquest to 484 BC, the year of the Babylonian rebellions against Xerxes.

Note that in this paper, the word “taxation,” especially when referring to phenomena encountered in Babylonian tablets dating to the sixth and fifth centuries BC, is most often used in a loose sense in that it also includes service obligations imposed by the state. Conceptually, for Mesopotamian states, and also for the Persian empire, military conscription was just a special case of forced labour service. Terminology most often does not distinguish clearly between soldiers and workers.
Introduction

While Classical sources, especially Herodotus, have proved to be of little value for reconstructing the Persian government’s multiple ways of extracting material resources and manpower from the province of Babylonia, cuneiform texts contain ample pertinent information. Basing itself on recent research (summarised in Jursa 2010a and 2011), this contribution presents a brief survey of the status quaestionis and then places its focus on anecdotal information and quantitative data that can be brought to bear on the issue of the impact of the taxation system on the overall socio-economic situation in Babylonia. Discussion will be limited to the best-documented period, from the Persian conquest to 484 BC, the year of the Babylonian rebellions against Xerxes.

The system by which the Persian Empire drew on Babylonian resources has to be placed in the wider context of Babylonian fiscal history. M. Hudson’s survey of ancient and in particular Mesopotamian fiscal evolution is useful as a point of departure (Hudson 2000). Hudson offers what amounts to a general model of Babylonian taxation by positing “Nine Principles of Ancient Fiscal Evolution,” of which the most important are the following: the paramount importance of military conscription among the demands made by the state on its population, its cost being covered, not by direct taxation, but by drawing on the resources of landholders in proportion to their holdings; the wide-spread reliance on temple and palace dominions for the support of these institutions; tribute-taking as a form of society-wide tax, typically imposed on subjected population groups (i.e., on “others”); absence of public debt and of comprehensive budgeting; and successful tax evasion by elites. In Hudson’s view, the overall strong reliance on revenue from public assets and on labour services reduced the need for market transactions and taxation of crops and goods.

As a general model, these points have an indubitable heuristic value for the third and second millennium BC, but for Mesopotamian history in the first millennium, and especially for Babylonian history from the late seventh century onwards, important qualifications need to be added. First, the importance of labour services is undeniable. However, the conversion of labour services into substitute payments, more often in cash than in kind, was extremely common. This blurred the distinction between taxation and the extraction of labour. Access to manpower continued to be the primary interest of the state, but it was furnished indirectly through a labour market: substitutes had to be hired and paid competitive wages. Landowners had to market their produce aggressively because they had to raise cash to pay for the substitute labourers who fulfilled the service obligations incumbent on their land: market exchange of various forms, monetization and taxation are inextricably linked in this period.

Second, one should question the assumption of the ubiquitous reliance of Mesopotamian states on the revenue from temple and palace lands, which is tantamount to assuming that these states were (largely) domain states in the sense of the ‘Bonney-Ormrod Model’ (Bonney and Ormrod 1999). This is undoubtedly true for some periods of Mesopotamian history, but it is incorrect in general for the large empires of the first millennium. Obviously domain revenue continued to play an important role, but we do see strong tendencies towards a development of a tax state in the sense of the Bonney-Ormrod Model: the kings/states increasingly demanded contributions that were not based on the ownership of land or other resources (which makes the revenue a rent rather than a tax), but on the ruler’s authority as such. In Assyria in the late eighth and the seventh century, internal resource extraction was based on two pillars: taxation of agricultural income, and labour services levied on parts of the population (e.g., Radner 2007, Postgate 2011). In addition, there were some indirect taxes

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on transactions of various types: sale taxes, harbour dues, and the like. Agricultural taxes amounted to ten percent of the cereal crops and twenty-five percent of the straw. The latter was crucial for the Assyrian army, which depended heavily on its cavalry and therefore needed an ample supply of fodder – the straw tax amounts to a tax for the benefit of the military. It is sometimes assumed that these taxes were levied on all types of land, that there was a general income tax. However, the documentation that we have does not support this conclusion; the reality seems to have been far less well-organized and uniform than our wish to generalize would have it. In fact, we most often hear about this form of tax in the context of tax exemption grants made to members of the elite and even to entire cities, in particular populous religious centres in the heartland. In the Neo-Babylonian and Achaemenid period we have particularly clear evidence for the broadening of the tax base by a considerable expansion of indirect taxation and the corresponding extension of accounting and information gathering procedures. Other elements of the tax state according to the Bonney-Ormrod model that are present in our period include a professional class of bureaucrats that worked side by side with members of the traditional (patrimonial) social stratum of elite families; state responsibilities seem to expand; there is a general tendency towards money payments in the taxation sphere especially in Babylonia in the sixth and fifth century, but not so much earlier in Assyria; and taxation may become somewhat more regular and predictable.

In the light of these observations, we discuss in turn imperial resource mobilization by drawing on the revenues of royal domains and by taxation (and labour extraction) through the exercise of governmental authority.

Royal domains and estates of Persian nobles in Babylonia until the first years of Xerxes

In our period, royal estates are explicitly attested all over Babylonia: in Borsippa (e.g., BM 25658, 85223), Dilbat (VS 6, 171; indirectly), Isin (Jursa 2005: 102), Nippur (BE 8, 85, 118, OECT 10, 401), Sippar (e.g., BM 74622), and Ur (UET 4, 50), as are urban and rural possessions of Persians, who are certainly or most probably members of the ruling elite and office holders (e.g., Dar. 296, Dar. 379, Dar. 410, Babylon; RA 90, 48, no. 6: Bit-Abi-rām). In case of the crown-prince’s estate the Egibi/Nūr-Sin archive shows that there was continuity from the Neo-Babylonian to the Persian period in that the holdings of Belšazar, Nabonidus’ son, were taken over by Cambyses, and this will have generally been the rule for royal estates, but there is no evidence for large-scale expropriation of Babylonian (elite) landowners after the conquest. Even in the absence of direct pertinent information one can thus assume that the rents and revenues that accrued to the crown from its own domains were substantial, as in the Neo-Babylonian period, but there is nothing in the sources to suggest that the state could have financed itself to a significant degree by drawing on these resources only. This is evident also in a comparison with the Late Achaemenid period: in relation to the overall far less numerous sources from the fifth and fourth centuries, the much greater number of references to royal estates and estates of Persian nobles in this later period is surely significant and indicates an expansion of the domains of the king and his elites. Even more often one hears of royal land grants to officials of Iranian extraction. Land in the hand of Persian nobles and members of the royal family is likewise well attested, as is land held by royal officials of Babylonian origin. This new group of landowners may have in part held newly-reclaimed estates, especially in the geographically somewhat isolated

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2 This is particularly clear in the case of the ‘courtiers,’ ša rēši, and other specialized administrative personnel of foreign, especially Egyptian, extraction (Jursa and Hackl, in press). A synthesis on Late Babylonian officialdom can be found in Jursa (in press).

3 As can be shown by a comparison between Nbn. 184 and Cyr. 177 and a few other texts belonging to this dossier. We are grateful to C. Wunsch for pertinent information; she will edit the texts in question.

4 For which the most consistent body of data consists in the – as yet largely unpublished – ‘palace archive’ of Nebuchadnezzar (Pedersén 2005: 111ff.): the texts speak of deliveries of large quantities of staples for the use in the palace in the name of the rabi bīti, the supervisor of the royal domains, and two officials (mašennu and bēl pīḫāti) who had tax-related responsibilities (Jursa 2010b: 74ff. – the former, as the chief supervisor of irrigation installations and public works, probably also had responsibilities in the realm of the royal domains). For more on royal land in the long sixth century see Jursa 2010: 857 (index).

5 Royal estates: e.g., Stolper 2007: no. 19; land grants to Iranian officials: e.g., BE 9, 102, OECT 12 AB 243, OECT 10, 192; see Stolper 1995: 224; estates of Persian nobles and members of the royal family: e.g., Stolper 2006 and Stolper 2007: nos. 6 and 15; estates of royal officials of Babylonian extraction: e.g., OECT 10, 197; also much of the evidence from the Tattannu und Bābāya (‘Kasr’) archives belongs here (e.g., Jursa 2005: 61 and 94-97).
Nippur region (Jursa 2010: 405-418), but in general their rise implies a decline in the fortunes of other social groups. All available information suggests that in the early Achaemenid period this state of affairs had not yet been reached, and that the taxation (and compulsory service) component of the resources that were extracted by the empire from the province were Babylonia’s principal contribution to the imperial project. Royal domains were an important source of income for the crown, but certainly not even close to being as important for the overall agricultural output of the land as private land or temple land. The crown was largely, but of course not exclusively, an exploitative institution. Nevertheless, a withdrawal of even a part the revenues of the royal estates from the circuit of inner-Babylonian consumption must have had an effect on the overall economic balance in the province. Such a process can be postulated a priori, and it is probably visible in private archives which refer to the service obligation of transporting foodstuffs to the court in Susa (zêbêlu ša upiyâti, see below). These texts do not indicate that the foodstuffs themselves were of private origin, i.e., the result of taxation: they may have been so in part, but they may also have been the revenue of royal estates, or part of the staples collected from the temples through the taxation of their income (see below).

**Direct taxation in Babylonia under Persian rule until the first years of Xerxes**

Direct taxation of mostly agrarian income and the extraction of labour and military service are documented in three distinct socio-economic spheres: in the realm of the temples; with respect to agricultural land that had been granted by the crown to individuals or groups who in return owed the king taxes and/or labour and military service; and with respect to private urban households.

The sources attest a wide range of officials engaged with tax collection and the levying of personnel: military commanders (rab hanšê, rab ešerti) and recruiting officers, dékî. Both direct and indirect taxes could be levied by tax farmers, as is attested i.a. in the Egibi archive in Babylon and in Borsippa (Abraham 2004: 17-142; Jursa 2010: 252-6). Credit was frequently extended by businessmen to tax payers for tax purposes, so entrepreneurs came to play an important structural role in the process of the collection of taxes and dues.6

Taxation in the temple sphere

Taxes levied on the income of temple lands were collected by an official attached to the Esangila temple in Babylon, the “governor of Esangila,” bēl pīhāt Esangila. The Esangila, the principal temple of Babylon, served as a collection point for this type of agricultural income. This tax, which was designated as “dues of the Governor” (kurummat bēl pīhāti), as well as kiṣir esitti “mortar tax” and balāṭu ana Bēl “(payment for) the life of the god Bēl,” has its root in the Neo-Babylonian period. Under Cyrus and Cambyses it amounted to 3.33 percent of the temple’s harvest according to two tablets from Uruk; corresponding payments could also be made in silver money (Jursa 2010a: 433f.). The latest attestations of this tax that are known to us come from the end of Darius’ first decade,7 but it is probable that this is a matter of coincidence. In the fifth-century Muraššu archive, mention is made of a tax called kūsurānu and balāṭu ana Bēl (van Driel 2002: 179-83). This terminological link to the sixth-century evidence at the very least suggests that the Bēl temple Esangila still served as a collection point for state taxes. It is possible that in the reign of Darius a part, perhaps even a substantial part, of the staples collected in this manner were withdrawn from circulation in Babylonia and transported to Susa, where they were consumed at court.

The royal administration drew on temple resources over and above the regular taxation of the temples’ agricultural income by requesting manpower for royal building projects and victuals for the provisioning of the (itinerant) court and royal palaces. The evidence comes from the temple archives of Ebabbar and Eanna, and to some extent from private archives from Borsippa (Tolini 2011, Kleber 2008, passim). The temples were also obliged to field a (small?) contingent of militia for the purposes of the royal army and for guard duties in the pastures in the foothills east of the Tigris.8 These royal demands were met by the temples in part with their own funds and drawing on the reservoir of dependent labour (the širku workers) at their disposal, in part the obligation was passed on to free

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6 See the survey in Jursa 2010a and 2011: 174ff. § 7. These articles contains the basic documentation for what follows. Therefore, references here will be limited to an absolute minimum.

7 Jursa 2010a: 434 note 16.

members of the temple community, such as priests (and generally to the heads of private urban households?) in the form of service obligations or obligations to pay for substitute labour.

The land-for-service sector and ‘military colonists’

The land-for-service system as found in the Persian period sources, in particular in the Murašû archive of the fifth century, and its forerunners in the early Persian period had their roots in even earlier Neo-Babylonian practice (which in turn may have been influenced by Assyrian institutions). The Persian administration extended this system by reclaiming additional marginal land and settling soldier-tenants on it, but it did so on the basis of pre-extant institutions and customs. This system of land tenure has been researched in great detail (van Driel 2002: 226ff.). Numerous individuals and groups of individuals, often of non-Babylonian origin, were assigned land – gardens, or more often fields – by the crown, or its representatives. In return, they owed service as soldiers and/or corvée workers as well as taxes paid in kind and (increasingly) in money. The estates in question were often situated on recently reclaimed or even marginal land; sometimes they seem to have consisted of temple land that could not be farmed by the temples themselves. The land-for-service system served two purposes: the integration of foreign groups into the fabric of the state and the extension of state-controlled agriculture into otherwise under-exploited areas. Collectives of foreign origin mentioned in the sources (mostly temple archives) include Egyptians, Carians, men from Philistia (Gezerites), Assyrians, Arameans, and others. Key terms include hadru, which designates a collective of such soldier-tenants in the fifth century, and kisru, which refers to such groups in the seventh and sixth century (van Driel 2002: 309 and 310 note 62). Individual holdings are usually designated as “bow property,” bit qašti or qaqgar qašti, the ‘fief’ of an archer, or common soldier, and less frequently as bit narkabti, “chariot property,” the ‘fief’ of a chariot soldier, and bit sisê, “horse property,” the ‘fief’ of a cavalryman. There are further distinctions between land held by “active” soldiers in contrast to those of the “reserve,” as well as to those who owed only partial service (Joannès 2006: 54).

There was always a tendency to dissociate the actual military service from the exploitation of the land connected with the service. Inheritance procedures, heavy service obligations (e.g., military service away from home) and the fact that some soldier-tenants held more than one grant all caused outsiders to be brought in to do the actual agricultural work (van Driel 1999: 219ff.). There was also always a role for entrepreneurs (traders, mostly) with access to money in this system: they could extend credit (for tax purposes) to the holders of the grants and eventually achieve control over their land. The service estates could be pledged to businessmen to be exploited by their agents or to be sublet by them, frequently to the original holders of the land. Furthermore, collectives of soldiers with a common tax load would have an interest in having as much land as possible within their remit cultivated; therefore, there was an incentive to make use of outsiders whenever the numbers of grant-holders were insufficient for the land available.

It is for these reasons that the obligations of holders of service land are frequently mentioned, not in texts which deal with the relation between these soldier-tenants and higher levels of the royal administration, but in texts which refer to the business relationship between private businessmen and indebted holders of service land on one hand, and between businessmen and royal officials on the other. This is most clearly the case for the Murašû ‘firm:’ credit operations ostensibly aimed at helping tenants of service land to fulfil their tax obligations allowed the firm to gain a foothold in the hierarchy of rights and obligations governing the agrarian relationships in the Nippur hinterland. While the Murašû archive is the most informative source for this kind of transaction, it is not unique: several other Neo-Babylonian archives exhibit the two essential elements common to the business model in question, viz., credit extended to holders of service land and agricultural management (including trade in staples) (Jursa 2011: 174ff.).

Taxation of urban households

For the urban population of Babylonia, the modes of taxation remained structurally unchanged throughout the late sixth and early fifth century, from the late reign of Nebuchadnezzar to the end of the reign of Darius. Notwithstanding considerable variation in terminology over time and a near-certain overall increase of the taxation rate especially under Darius, neither the Achaemenid conquest nor the reign of Darius itself brought qualitative change in the system. There was an increase of taxes.

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under Darius, but there was no general shift to money taxes under Darius accompanied by large-scale thesaurisation of this money as is sometimes assumed.

The principal purpose of the entire system was not to bring cash into the coffers of the state, but to pay for corvée labourers or soldiers. Payments made by individuals for ilku ("tax/service obligation"), qaštu “bow tax” and the like were normally used to pay for the hire of substitutes who undertook to do the actual service in lieu of those who paid for them. Such substitute labourers were either hired by the tax payers themselves, in an entirely decentralised manner, or by officials on the next level of the administrative hierarchy, i.a., by the heads of tax units and low-ranking military commanders. To a considerable degree, these money payments were therefore fed into the local economy again. This is well illustrated by letters from Uruk dating to the reign of Cyrus or Cambyses, which refer to the same service obligation incumbent on free heads of Urukean households (mār bane) as an obligation to “furnish a corvée worker (urāšu)” or “to hire for money wages (agāru) a labourer” (Kleber 2008: 103ff.; Jursa 2010a: 438).

A particularly explicit dossier from the Bēl-rēmanni archive dating to the later part of the reign of Darius is paradigmatic for the underlying administrative system (van Driel 2002: 295ff. and passim; Jursa 2010a: 439ff.). Free men sharing a similar social and economic background were united in tax and service units called ṣertu, “decury” – in the case of Bēl-rēmanni, these were mostly priests. The principal obligation owed by these Sipparean tax units was sometimes designated in the traditional way, as ilku, but more often it appears as qaštu, “bow tax” or “bow service.” The Persian administration seems to have had an interest in simplifying and standardising taxation terminology. It did so to a considerable degree by imposing the terminology related to ‘bow properties’ (bīt qašti) and archer service.10

Members of these ṣertus had the (theoretical) choice between serving in person and hiring men to do service for them. One text listing the members of such a tax unit and their financial contributions concludes with the statement that “one mina of silver ..., the wage of one hireling for six months, is at the disposal of” the head of the tax unit:11 money had been pooled by the members of the tax unit to pay for half a year of service of an outsider, presumably in Elam.

Within this dossier, BM 42352+ is particularly informative and useful for elucidating the basic structure of these service obligations and their administration: half a mina of silver is paid as a share of two men in the bow-tax (zitti qašti) owed by their tax unit. The silver is said to be intended “for digging a canal in Elam, for year 17 (of Darius), (a task) which the men of Ubāru [the recipient of the payment, MJ] execute at the behest of the governor of Babylon.”12 This bow tax thus financed a Babylonian work-gang employed in far-away Elam.13 This arrangement is one step removed from the personal hiring of a substitute by the person or persons theoretically obliged to do labour or military service, but on the other hand it is quite clear that the payment was not a simple monetary tax that was paid in cash to the Achaemenid treasury. On the contrary, the tablet shows that the extraction of taxes and labour services was based on a decentralised, ‘local’ form of organisation. Sipparean tax units were assigned a certain task by the governor of Babylon (who was also responsible for Sippar) and set up, and paid for, a labour gang led by one of their own: Ubāru, the recipient of the payment, is a well-known Sipparean priest. The governor of Babylon must have received his directions in a general form from the highest levels of the Achaemenid administration, but apart from this necessary step the entire organisation was in Babylonian hands, and the tax money circulated primarily among Babylonians. No record of the pertinent transactions would have reached the royal administration. An analysis of other dossiers, notably so the Egibi tax file and pertinent records of the archives of the Borsippean priesthood14 confirm this conclusion: on the level of the individual taxpayers or tax units, obligations

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10 Note that the bīt qašti and the associated system of service obligations predate the Persian conquest. In an urban context in the Persian period, being liable to the qaštu obligation does not imply ownership of a bīt qašti. On these matters see e.g. van Driel 2002: 237ff. and 312. Labour obligations (urāšu) could be levied in addition to qaštu (the two terms are mentioned side by side in BM 74638 (Waerzeggers 2000/2001: no. 41, see van Driel 2002, 23830).
13 The purpose of this work was, as Tolini has shown, the construction of a waterway connecting Susa to the Tigris following an old bed of the Karun, thereby creating an important conduit for the flow perhaps predominantly Mesopotamian goods to the imperial city (Tolini 2011: 288f., 293f.).
14 Abraham 2004: 17ff. and Jursa and Waerzeggers 2009, respectively.
towards the state were still mostly fulfilled by direct hiring of substitute workers or by supplying the money for this purpose to someone on a higher rung of the pertinent administrative hierarchy. The state appears to have aimed primarily at extracting labour (and staples, as we will see), not cash.

The taxation of city dwellers was based on the possession of certain types of agricultural land or urban real estate on or the affiliation to a certain social or professional group (Jursa 2010a: 440ff.). Already under the Chaldean monarchy, many well-to-do city dwellers (frequently priests and other member of the urban elite) owned gardens in the hinterland of their cities which were located in the regular field systems (hanšūs, literally “fifties”) on land which had been reclaimed late in the seventh or early in the sixth century through state intervention. Possession of (alienable!) fields and gardens in such areas brought certain tax and service obligations.

The Persian administration partly changed the terminology of the field systems, but not their structure, and introduced the terminology related to the bow properties of the land-for-service sector (notwithstanding the entirely different social and economic/legal background of the latter). From the reign of Cambyses onwards, one hears of bow taxes (gaštu) being owed for hanšū property,15 and under Darius, the bit qašti is frequently encountered in an urban context, and even more so the qaštu obligation. This does not mean that all the prosperous urban families owing such payments had been granted bit qašti land by the Persian administration; rather, the old Chaldean land grants of the hanšū type had been integrated, at least superficially, into the qaštu system.

Taxation levied according to urban residence patterns was likewise based on the creation of tax units (of ten or fifty men/households) sharing service and tax obligations (Stolper 2000; van Driel 2002: 294ff.; Jursa and Waerzeggers 2009: 251ff.). The city ward (bābtu) was the unit of reference, one hears of “levies of the city ward,” diku ša bābtu. Also in this case, ešertu units (or ziqpu units, in Borsippa) were formed that normally paid for substitute labourers doing the actual work.

Affiliation to certain professional groups, or to an institution, could likewise form the basis of service obligations. Tax units formed by men sharing the same occupation (in particular, prebendaries, bakers and brewers) are known from Achaemenid Borsippa (Jursa and Waerzeggers 2009: 252ff.). The distinction between such tax units formed on the basis of social/economic criteria and the tax units based on residence patterns mentioned above is probably to some extent artificial.

The terminology for the various service obligations incumbent on individuals and groups (tax units) has been discussed extensively by especially van Driel.16 The most frequent terms as follows:

- ilku “service obligation (or corresponding payment),” sometimes termed more specifically as ilku ša urāši “corvée service,” or ilku ša bābtu “labour service based on residence in (a certain) city ward.” In the sixth century corresponding payments are exclusively made in silver; a wide range of between three and forty shekels per year is attested. The word can interchange with qaštu “archer/soldier” and urāšu “corvée (worker).”

- qaštu “(payment for) archer (service),” perhaps better understood as referring to military service in general. This is most common obligation under Darius; it is the main component of, or identical with, ilku in this period. It is usually tied to membership in a tax unit (ešertu in Babylon, Sippar and Uruk, ziqpu in Borsippa). The full cost of fitting out an archer for a year amounted to up to one mina (60 shekels) of silver. It was most often borne by collectives.17 Occasionally the word can interchange with ilku ša urāši and similar terms (Jursa 2011: 172ff. § 5.3b).

- urāšu “corvée, corvée worker.” In the Chaldean and early Persian period, this is the obligation that is most frequently imposed on private households. Later in the Persian period, especially under Darius, this term is usually substituted, but not entirely replaced, by qaštu; the two can interchange. There is probably no material difference between the obligations designated by these two terms. urāšu service frequently required service outside of Babylonia, foremost in Elam.

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15 BM 27781, 4 Camb; see also van Driel 2002: 237 on BM 79128.
17 Texts dealing with the hiring, provisioning and equipment of soldiers use the keywords rikis qaššī and pasa du “fitting out,” as well as sāb šarri “royal soldier.” Payments thus designated do not refer to an independent type of tax, but to the normal ilku or qaštu obligation.
The bulk of the documentation we are dealing with here concerns service obligations and substitution payments in money. In comparison, taxes payable in kind play a minor role in the context of the taxation of city dwellers. In general, the agricultural income of private urban households does not seem to have been taxed directly by the crown. Only a flour tax intended to benefit the local palace institutions is mentioned frequently in the sixth and fifth centuries alike. In the final count this is a labour obligation, however – the grain that was to be milled could be furnished by royal officials from the royal stores (van Driel 2002: 268ff.). This obligation belongs in the wider context of the manifold obligations incumbent on the subject populations of the Achaemenid empire to contribute to the supplying of the Persian court. Sipparean priests for instance can be seen to deliver food intended for palace personnel in Babylon (Janković 2007: 223 note 10.). Individual urban households could be made responsible for the provisioning of royal dependants who were quartered with them: this phenomenon, which is so far attested only for the Teispids and the early years of Darius, is known from Borsippa and Babylon, where Egypto-Carian and Jewish mercenaries were stationed (Waerzeggers 2006), and from Uruk, where at least one Iranian boy was placed in a household of temple dependants by an Iranian noble (Jursa 2011a). The upiyātu foodstuffs that were destined for the court in Elam are a problem apart (Tolini 2011: 314ff.). The private archives that mention them refer to the duty imposed on priests (and their mother temples) to finance the hauling of these foodstuffs to Susa – using no doubt a waterway that was constructed with Babylonian labour and funds in the Susiana (note 13). The origin of the staples themselves is not stated in the texts. While a part may have come from the priests and their communities, the fact that the sources emphasize the duty of hauling rather than that of providing the foodstuffs, suggests that the principal source of the staples was another: most likely royal estates and/or the taxes in kind paid by temples to the royal administration. In any case, it seems certain that we are dealing with a very substantial flow of goods since the transport costs were placed as a special burden on Babylonian urban communities.

Few direct taxes were paid in cash. The ubiquitous silver payments attested in a taxation-related context refer in fact to labour obligations and are intended in most cases for the hiring of substitutes; the silver thus paid continued to circulate mostly within Babylonia and among Babylonians. Even though on the level of the individual taxpayer these arrangements could be mistaken for straightforward money taxes in those cases in which the money was collected either by the commanders of military/corvée units or by tax-farmers and was subsequently passed on to higher authorities or was used locally to hire the necessary men, in fact the original link to service obligations and consequently the intention to finance actual work/service with the tax money was always maintained. The ‘taxation system’ was geared primarily towards the mobilization of manpower. Silver payments demonstrably intended for the Persian court and therefore potentially for thesauration (as predicted by the Herodotean model) are restricted to those cases in which Babylonians transport silver to Susa. Even then, much of the silver that was used by Babylonians in the context of these trips seems to have been used for gifts to Iranian notables and to pay for foodstuffs of different types that were likewise given to Persians, or consumed by Persians and Babylonians together.18

Indirect taxation in Babylonia under Persian rule until the first years of Xerxes

Indirect taxation and fees collected by the government, or by tax farmers on behalf of the government, is well documented (Jursa 2008; 2011: 174ff.). The taxation of real estate sales begins at the latest during the reign of Nabonidus, that is, already under Chaldean rule (van Driel 2002: 185). Under Darius (at the latest) the authorities kept a land register for monitoring and taxing such transactions (Baker 2004: 59ff.). In the same period, also slave sales were taxed (Stolper 1989). This system was maintained and developed continuously until the Hellenistic period.

The second principal type of indirect tax was levied on the transport of goods. At the latest since the reign of Nebuchadnezzar, numerous fees were levied for the use of harbours, bridges and gates. Also here there is a continuous development from Chaldean times throughout the Achaemenid period until the third century and Macedonian rule (van Driel 2002: 274ff.; Joannès 2002: 509ff., Weszeli 2009: 165.). Payment for water rights was owed to land owners, including the crown. Whether there was a general tax on water rights is uncertain (van Driel 2002: 188ff.; Stolper 1985: 36ff. and id. 2005).

18 E.g. VS 6, 155; Donbaz and Stolper 1997: no. 46. See the comprehensive study of this matter by Waerzeggers 2010 and the pertinent remarks in Tolini 2011 and Jursa 2013.
The burden indirect taxes constituted for the Babylonian economy and their value for the Persian administration cannot be quantified. However, their gradual expansion over time shows their profitability for the state, which can hardly be surprising given the obviously massive increase in the volume of goods which circulated in the country in the sixth century owing to the commercialization and monetization of many sectors of the economy (Jursa 2010). Transport taxes were clearly a major concern for those Babylonians who engaged in commerce and shipping, and indirectly the cost of taxation on the movement of goods must have hit also the – increasing – segment of the population which was at least partly dependent on the market for its subsistence.

The impact of taxation on Babylonian society and economy

The revolts against Xerxes in the second year of his reign (484 BC) are a major watershed in the history of Babylonia under Persian domination, according to the argument that was proposed by Waerzeggers 2003/4 and, independently and in a slightly different way, by Kessler 2004, and that was subsequently expanded by Baker 2008 (see, e.g., Waerzeggers 2010a: 9). Notwithstanding the debate that has grown around these essays (e.g. Henkelman et al. 2011), it is beyond discussion that the Persian reprisals targeted the Babylonian urban elites, especially priests and families with ties to local government, in the north of the country – Borsippa, Babylon and Sippar, at a minimum – as well as elite families originating in Babylon that had been resident in Uruk. It follows that it had been this stratum of society that had primarily supported the rebel kings. Which motives had prompted the Babylonian urban elite to revolt in a serious fashion for the first time after more than half a century of Persian rule? It is a priori probable that the conquest in 539 BC initiated a gradual encroachment of Persian imperial power (and its supporters) on the privileges of the Babylonian elites - to put it in the most general terms, notwithstanding the multiple evidence for continuity between the Neo-Babylonian and the Persian period, and that under Xerxes this process had progressed to a crisis point. But one would like to be more specific. Even a superficial perusal of Persian period tablet archives shows that tax-related documentation is ubiquitous, far more so than in the preceding period of the Neo-Babylonian empire. The question then imposes itself whether an increasing tax load contributed significantly to the motives that brought the Babylonians to rebel.

Direct quantification of the impact of taxation on individual households is difficult. The most informative dossier for an elite family’s tax and service payments over an extended period during the Persian period is found in the Borsippean Rēʾi-alpi archive (Jursa and Waerzeggers 2009: 263ff.). The minimum annual tax load of 48 shekels for direct taxation and service obligations that can be deduced from this documentation corresponds to slightly less than the price of a male slave, or the annual wages of a well-paid hired worker (and the subsistence requirement of a nuclear family: Jursa 2012: 301), or the total income of an average Borsippean date garden (Jursa 2010: 461). This is certainly not a negligible sum, but for the affluent Rēʾi-alpis, it would have been bearable. For less prosperous families, this sum would have been beyond reach. It is not surprising that the yearly cost of a soldier – usually roughly one mina or sixty shekels, that can be deduced from Borsippa and Sippar texts dating to the reign of Darius (Jursa and Waerzeggers 2009: 257) – was normally shared by tax units of ten men. Even so, six shekels still amount to between seven and twelve percent of a minimum household income under Darius (depending on the highly fluctuating price levels in this period; Jursa 2010: 296ff.). For families close to subsistence levels, as many priests undoubtedly were, this was a serious expense.

Another avenue by which the issue can be approached is adopting a ‘microhistorical’ stance and focusing on anecdotal data mostly from epistolographic sources that may reflect general trends which remain hidden in the highly formalized legal and administrative documentation. There is for instance a dossier of Urukean letters dating to the reign of Cambyses that deal with building work executed by the Eanna temple for the crown. These letters reveal a picture of bad organisation and constant lack of funds and manpower, which resulted in considerable pressure on all officials involved (not to speak from the badly paid and badly fed workers themselves). Temple officials who failed in their duty towards the royal administration faced arrest and worse (e.g., Kleber 2008: 207f. on YOS 3, 139). We can consider as emblematic the statement of a Urukean temple dependant who, during a quarrel with a colleague, threatens to throttle the other man with his own neck chain, saying “this is how Gubāru and Parnakku will place neck chains on workers (like you)!”. This refers to the heavy corvée and labour

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19 See Stolper 2003; Kleber 2012.
demands made by the Achaemenid governor Gubāru and his high-ranking colleague Parnakku, which in public perception strangled who was subjected to it (YOS 7, 128, second year of Cambyses).

Continuing in this vein, we cite here a few letters, mostly from private archives, which can be dated to our period and refer to taxation and service obligations and to related problems.²⁰

“... thereafter they sent Bēl-aplu-iddin, the rab meʾātī (‘overseer over one hundred’). He presented your case to the governor as follows: ‘As for Kiribtu, he has accumulated arrears of [x times] 100 kurru of his ... dates, 800 kurru barley for the god Bēl, 1000 minas of his wool, 500 of his sheep and 2000 (kurru) of his (own) barley.’ However, he has presented your case incorrectly (or: disingenuously? amāṭa la kittu iqtabī). In any case the governor has charged 800 kurru of Bēl against your account. When I intervened personally on your behalf, he simply entered the 800 kurru against my and Mušēzib-Marduk’s account. We protested but the governor did not relent. He has definitely charged the 800 (kurru) of Bēl against [our] account.…” (TMH 2/3, 254; Hackl et al. 2014: No. 149).

“... You have been doing business with me like a man who is doing business with his enemy; you have not done what I wanted. Until you went to court we were all happy and I could fulfil my service obligations....’ (.... lib-bu-ū lū šā it-ti en da-ba-bi-ū šū kaskašil il-la-ku lib-bu-ī-sū kaskašil it-ti-ū ta-at-ta-lak si-bu-ta-a ul te-pu-uš a-di muḫ-ḫi šā [r]a-gi-ri pa-ni-ma [ha-d]a*-tu 'ku'-la-nu [ū] il-ku a[I-lak] ... CT 22, 144)

“... and regarding the garlic for the governor’s tax which the lord has received: the owners oft he fields have come and protested, as follows: ‘are the taxes (in kind) we paid for the governor being sold for money?’ I was nearly beaten up for this reason ...” (Pinches, Peek 22 = Hackl et al. 2014: No. 40)

“... even though you your self have entered me as supplementary worker you have Mušallim-Marduk go there without doing any irrigation work yourself. Is this Borsippean friendship? I have been treated unjustly. It is fort his reason that you should not disregard my letter. Should you come here for the month of Addânu, bring him with you and let him irrigate the land. Otherwise <...>” (OIP 122, 160 = Hackl et al. 2014: No. 141)

“... as you can see, I have now written to you; give him the tax payment for military equipment that you owe corresponding to your share (in the tax obligation) and help him recruit the men. Do not let him labour in vain. The gods Bēl and Nabû are my witnesses: I will certainly inform the governor if you do not do this; you will come here in chains and will have to pay (your part) anyway. ...” (Abraham 2004, 48 as read in Hackl et al. 2014: No. 62)

“... as you can see, I have now written to you; give Širku the tax payment for military equipment that you owe corresponding to your share (in the tax obligation). Do not let him labour in vain, hurry to do what is necessary to help him along. The gods Bēl and Nabû are my witnesses: I will certainly inform the governor if you do not do this and I will bring you here in chains so that you will pay (your share in) the tax for military equipment. I want to get the money for this from you according to the king’s law (dāta). You should know this. ” (ZAR 16, 67ff. = Hackl et al. 2014: No. 142)

“Letter of Guzānu to Širku, my brother. Let Bēl and Nabû ordain my brother’s health and well-being. Every day you keep telling my lies here in Babylon. You tell me: ‘Libluṭ, the chariot commander, and your chariot troops are indeed all assigned to you.’ However, the fortress commander has come and has withdrawn Libluṭ and the chariot commanders from my reserve by saying: ‘they belong to me.’ He has also taken away the chariot soldiers who were with me. You were supposed to look after my interests with him, but instead you have received from him some property to my detriment. The chariot commander Libluṭ is now in charge of the boats which have already left. Send a message to (the city) Danipinu: don’t relinquish to him the chariot commanders, the chariot soldiers and the city militia. Let him not denigrate my men to the fortress commander. Talk to Atkal-ana-mār-Esangila in this matter. Assign to him soldiers in compensation for the soldiers (the fortress commander has taken). You are responsible to king Darius! Relinquish the gardu men about whom I

²⁰ For texts edited in Hackl et al. 2014 we will only give a translation.
have given you instructions. As you can see, the gate guard and all the chariot commanders are already at your disposal. Also the troops of Bīt-Dakūru who are in Babylon are at your disposal. You should not lay any claims to the men of my chariot estate (bīt narkabtia).” (CT 22, 74 = Hackl et al. 2014: No. 61).

As one would expect, procedures were not always very precise and well-circumscribed, officials could be less than conscientious. TMH 2/3, 254 for instance includes a remarkable description of the imposition of the ‘income’ tax of the Ekur temple by the governor of Babylon – who, at least in the eyes of the Nippurean representatives of Ekur, assesses the Ekur’s debt in a rather arbitrary fashion. There was considerable anxiety attached to the issue of taxes and service obligations; emotions ran high. In comparison to the overall very dry and neutral tone of the Late Babylonian private letters, the occurrence of ‘strong’ and emotional statements in taxation-related contexts is striking. In CT 22, 144 a man is complaining implicitly that his colleague’s actions caused him unhappiness and interfered with his service obligation – significantly, unhappiness and difficulties with taxes are put on the same level. In Pinches, Peek No. 22, a tax farmer’s slave reports narrowly having escaped being beaten up by farmers who feared that their tax contributions had been sold illicitly, exposing them to reprisals or in any case causing their tax debts to remain unpaid. In OIP 122, 160 a man complains in an emotional tone of having been assigned an agricultural service obligation that then had been given to someone else who however had failed to execute the task – again, the sender seems to fear the consequences. Abraham 2004: No. 48 and ZAR 16, 67ff. threaten a defaulting tax payer with arrest and forced payment; the man is supposed to collaborate with Marduk-nāṣir-apli (= Širku) of the Egibi family, the tax farmer in charge of collecting the military tax in question. Also the business of a tax farmer was not without a certain risk, as can be understood from the emotional undercurrent in CT 22, 74, a letter addressed by the city governor (šākin ṭēmi) to the same Marduk-nāṣir-apli (= Širku) of the Egibi family. The governor complains of Širku’s less than conscientious handling of matters of military recruitment; in fact, he says that the current head of the important Egibi family business has accepted a bribe from one military commander to go against the interests of the city governor. Širku is threatened with the king; the language the sender – who is no other than the highest representative of the (semi-)autonomous city government of Babylon – is unusually emotional for so high-ranking a sender. As far as this evidence goes, it does lend support to the assumption that taxation was a constant, and problematic, factor in the life of propertied Babylonians who were a natural target of the Persian government.

At this point, it is useful to refer at least briefly to the rich price data of the long sixth century. While prices start to increase from the mid-century onwards, still under the Neo-Babylonian Empire, this increase turns extraordinarily steep during the reign of Cambyses and especially Darius. This can be seen in the following graph, which compares the development of staple prices, the prices of date gardens, and the prices of (male) slaves and sheep. The values for -560 have been set at index = 100 (Jursa 2010: 462f.)

21 Jursa 2010, passim. A study by R. Pirngruber and M. Jursa that takes some of the pertinent discussion further is forthcoming; here, some preliminary results of this work are presented in a concise form.
There can be no doubt that the level of prices during the later reign of Darius is that of an exceptional crisis – in the following centuries, prices climb to comparable levels only during the wars of the successors (see Pirngruber 2012). The origins of this development are manifold (Jursa 2010: 745ff.). One root of the price inflation is monetary; it is a result of the huge influx of silver into the Babylonian economy that began with Nebuchadnezzar and continued until the fall of Babylon to the Persians, if not, to some degree, beyond this point (as some public building projects, which were the main conduit for this influx of silver, were continued under Persian rule). To some extent, there was a supply crisis. We know that the climate was turning towards a drier phase in the second half of the sixth century, and there is explicit evidence for failed barley harvests during the reign of Cambyses (Kleber 2012) – there may have been more such episodes later in the century, which drove up barley prices well above the general trend. Was there also a demand crisis? Demographic growth as such could have driven up commodity prices, but it then would also have driven down wages, which was not the case: wages increase more or less in step with the general price trend. The price of labour is also represented by the price of slaves, which trebles between the years -560 and -510. The pattern is thus not consistent with a ‘price revolution’ triggered by growing internal demand (see, e.g., Fischer 1991: 65ff.). If a demand-driven component is assumed to have contributed to the price increase, it would have had to be external demand, both for commodities and for labour. This would be consistent with the assumption that the Persians withdrew substantial resources of manpower and staples from the province, especially under Darius. The labour-component of this hypothesis is sufficiently documented to be unproblematic. The withdrawal of significant quantities of staples from inner-Babylonian consumption on the other hand can only be postulated on the basis of the data for the upiyyātu deliveries and the construction of the nār kabarri (note 13), which implies the need for a labour-saving waterway from Babylonia to Susa. The huge quantities of staples that were consumed at the court at Persepolis (Henkelman 2010) allow us to assume that the court in Susa was equally expensive and would have needed as many contributions from outside of the Susiana as possible.22

Land prices – as represented by garden prices in Babylon and Borsippa, i.e., prices for the most coveted properties of the Babylonian urban upper classes – follow the general trend only in part (Jursa 2010: 457ff.). They rise nominally by about sixty per cent from -550 until the end of the century, but corrected for inflation, the value of land remained stable or probably even fell. This begs an explanation in a period of soaring food prices, when throughout the society the ownership of land was the most secure guarantee for economic subsistence. The factor market for land (Jursa 2014) was not

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22 In passing it should be mentioned that the price development excludes that the Persians withdrew significant quantities of silver from circulation within Babylonia

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fully integrated with other markets owing to heavy social constraints on the alienation of land: when Borsippean priests for instance had to sell a part of their plots, they practically always sold it to their social peers. We know furthermore that in Borsippa during the reign of Darius, either plot sizes were significantly smaller than in earlier periods, or surface yields significantly lower (Jursa 2010: 374) – at the moment it is impossible to decide which of the alternatives is to be preferred. Assuming the second alternative is correct, this would be an indication of an agricultural crisis in northern Babylonia that would explain the stable or falling real land prices; this crisis would naturally have affected the economy quite significantly. Assuming the first alternative is correct – as a result of inheritance practices that are explicitly documented in the case of several dossiers – there would have been a relative shortage of land and real prices should have risen, especially in the light of the food crisis of the time. The actually stable or falling real prices then would have to reflect a relative decrease of the profitability of land that resulted from external factors; in this case, increasing taxation and service obligations that were attached to landed wealth are the only plausible explanation (Jursa 2010: 461f.).

Also in this case the economic wellbeing of the Babylonian elites would have suffered heavily. We can conclude therefore that the land prices in any case indicate that the economic situation was difficult also for the wealthiest stratum of Babylonian society. A heavy taxation load is very likely a contributing factor, but is has to be admitted that the pertinent data do not have to be read in this way.

Finally, mention has to be made of a small dossier of letters dating to the very last years of Darius and the first two years of Xerxes, perhaps even to 1 and 2 Xerxes (Jursa 2013). These letters show that at one point during this period, a royal official employed in Ezida stopped the payments to the priests that were owed to them for their cultic services – a major interference in the management of the temple institution. The only possible reason for this is that what funds there were (perhaps less than usual, owing to an agricultural crisis?) had been requisitioned by the crown. The duration and outcome of this episode is unknown – it may have directly preceded the revolts in 2 Xerxes, but this cannot be proven – but if nothing else it is a clear indication of an economic (and resulting social) crisis in northern Babylonia these years, which, if it was not actually caused by Persian demands on Babylonian resources, was certainly exacerbated by them. The rest of the data on the social and economic impact of Persian taxation on Babylonia that we have reviewed here is at least congruent with this hypothesis.

Abbreviations

Cuneiform texts, journals and series are cited according to the usual Assyriological conventions (see e.g. Jursa 2005: 153ff. for a pertinent list). Note the following abbreviations of kings’ names used in Babylonian dates (which follow the format day.month.king’s regnal year [acc stands for “accession year”).

Npl Nabopolassar 626-605
Nbk Nebuchadnezzar II 604-562
AM Amīl-Marduk 561-560
Ner Neriglissar 559-556
LM Lābāši-Marduk 556
Nbn Nabonidus 555-539
Cyr Cyrus 538-530
Cam Cambyses 529-522
Bar Bardiya 522
Nbk III Nebuchadnezzar III 522
Nbk IV Nebuchadnezzar IV 521
Dar Darius I 521-486
Xer Xerxes I 485-465

Note also: š. = shekel (8.3 g); m. = mina = 60 shekels = 0.5 kg.

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