On some price observations and affiliated data recorded in Late Achaemenid and Early Hellenistic archival texts from Northern Babylonia[1]

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1. Introduction

This paper presents a preliminary survey of price data and rations culled from published and unpublished archival texts from Late Achaemenid and Early Hellenistic Northern Babylonia. The textual material under consideration offers data sets for a whole range of commodities to be used in the analysis of price behaviour in the period following the 'long sixth century'[2]. The investigation of price developments is an important issue, but it is fraught with problems, owing to the incompleteness of the data. It needs to be stressed that given the scarcity of the cuneiform textual material postdating the second year of Xerxes (484 BC), the near-absence of usable data from the fifth and later centuries renders exact reconstructions of price behaviour impossible. The small number of attestations notwithstanding, some general trends can be described anyway. This is important because the Astronomical Diaries[3], being *the* main source of substantial price series in the Late Achaemenid und Hellenistic period, offer little information for the fifth and early fourth centuries BC.

Since a substantial part of the archival texts from Northern Babylonia still remains unpublished, some introductory remarks are in order. The following section is intended to give a concise survey of the time span und text corpus under consideration. (Note that the textual material is also studied by the present author (PhD thesis) in terms of diplomatics, archives as well as socio-economic aspects – hence the focus on price data from Northern Babylonia.) In section 3, some selected data sets shall be presented and compared to material from the 'long sixth century'.

2. Late Achaemenid and Hellenistic archival texts from Northern Babylonia: time span and text corpus

The beginning of the period under consideration is marked by the suppression of the Babylonian revolts against Xerxes (484 BC). The remainder of the fifth century and the larger part of the fourth century BC Babylonia remained largely unaffected by major political events of greater impact. Only the advent of the Macedonian king Alexander the Great should

[1] Abbreviations are those of the *Archiv für Orientforschung* 48/49 (2001/02), 311ff. und Jursa 2005, 153ff.
[2] On this term see Jursa 2010, 4f. It refers to a time span of some 150 years beginning with the ascent of the Neo-Babylonian empire in 626 BC and ending in the second year of Xerxes (484 BC).
[3] See in general van der Spek 1993, Slotsky 1997, Vargyas 2001 and van der Spek/Mandemakers 2003.

change the political landscape of the Ancient Near East substantially. The last three decades of the fourth century BC saw Babylonia pass successively from Achaemenid to Macedonian and, ultimately, to Seleucid rule.[4] The extraordinary rapid changes and extensive armed conflicts that took place in the Macedonian high command following Alexander's early death, with Alexander's generals striving increasingly to build up power-bases and then expand by adding more of the territories that had formed the Achaemenid empire, profoundly disrupted Babylonian political life for almost twenty years and resulted in considerable suffering for the local population.[5]

It is the textual material drafted in this period (early fifth to early third century BC) on which the present study draws. In the period spanning the later portion of the reign of Seleucos I and the reigns of the following Seleucid (and Parthian) rulers, documentation becomes less dense. Apart from a few dozen contextually isolated legal records, the later Seleucid textual material is made up by only two archives: the Abu-ul-īde[6] and Rahimesu archives.[7] The latter also stands at the end of Cuneiform writing tradition in the context of economic record keeping (94-93 BC).

Studies carried out on the basis of the extant Babylonian textual record from the later period are hampered by several factors. Not only is the documentation from the later fifth century onwards (henceforth post-484 BC period) far less abundant than that of the 'long sixth century', also the chronological and geographical distribution of the material is uneven: only some 2,000 tablets are available in publication of which less than 700[8] were drawn up in Northern Babylonia.[9] The larger part of the material stems from central and southern Babylonia, that is, especially from Nippur and Uruk respectively, and with the exception of the extensive but atypical Murašû archive from Late Achaemenid Nippur (more than 800 tablets)[10], the bulk of the available cuneiform documentation dates from the Hellenistic period (Uruk).[11] What is more, the post-484 BC material cannot compete with the sixth-century

[4] See the convenient historical summary in Boiy 2004, 99ff.
[5] See most recently Boiy 2007, 40ff. and 111ff. on the political events during the Wars of the Diadochi. Boiy also includes cuneiform sources dating from that period.
[6] On this archive see most recently Jursa 2006.
[7] On this archive see van der Spek 1998. In general, also Jursa 2005, 75f.
[8] Major publications of Late Achaemenid and Hellenistic textual material from Northern Babylonia (in selection) are San Nicolò/Ungnad 1935, Kennedy 1968, Jakob-Rost/Freydank 1972, Joannès 1982, McEwan 1984, Stolper 1992, 1993, 2004, 2007, van der Spek 1998, Jursa 2003 and 2006. Around 600 texts, mainly in the collections of the British Museum, can be added now of which copies or transliterations are available to the present author.
[9] In comparison, from the 'long sixth century' about 16,000 tablets are available in publication and many more remain unpublished or unread. See Jursa 2010, 6.
[10] The pertinent literature on this archive is conveniently summed up in Jursa 2005, 113f.
[11] Oelsner 1975-1976, 312ff.[10] gives a list of the Late Achaemenid sources then available; for material published since then see the pertinent sections in Jursa 2005 and note 8. Basic bibliographical information on the texts

corpus in terms of the wide variety of subjects treated. This is not only because some text types are obviously no longer committed to Cuneiform writing. The very number of tablets that have come down to us makes it impossible to present a picture as coherent and accurate as the one that can be drawn for the 'long sixth century'.

The reasons for the scant cuneiform documentation after the suppression of the revolts against Xerxes have been debated extensively. Without going into details, the following reasons are generally held responsible for the decline in writing Cuneiform (in the context of record keeping). Probably the main reason is what is now commonly referred to as 'the end of archives'[12] in the second year of Xerxes (484 BC), being the result of the reprisals against the major, northern Babylonian temples and the urban elites of the major northern Babylonian cities who had instigated, or at least supported, the revolts against Xerxes. Furthermore, the supposedly diminishing importance of the Akkadian language (especially during the second half of the first millennium BC) and the decreasing use of clay tablets in favour of perishable writing materials like papyrus and leather are also often cited in this context. Eventually, one should also mention accidents of recovery and the overall poor state of preservation of the textual material. The latter also seems to be the reason why the post-484 BC material from Northern Babylonia only received limited scholarly attention, as is being reflected in the number of published texts.

3. Price data and rations from the post-484 BC period

The brief sketch of the political developments during the Late Achaemenid and Early Hellenistic period outlined above gives rise to the question whether these events are reflected in the legal and administrative textual record from Babylonia. Despite a general continuity which is to be found in these texts, significant differences are indeed to be noted between Achaemenid and Seleucid legal texts, in both form and content.[13] It is reasonable to assume that some of these formal changes were responses to changing conditions of the juridical or commercial environment in which texts were written, and that some of the changes in the environment were themselves results of the above mentioned political developments.[14] In the present context, however, we are less interested in formal changes than in economic changes that can be inferred from the data preserved in the archival texts from Northern Babylonia:

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dated to the Hellenistic period can be found in Oelsner 1986 with additions in Stolper 1994, Boiy 2004 and Corò 2005.

[12] It has recently been shown that the uprisings at the beginning of the reign of Xerxes lead to reprisals against the Northern Babylonian elites which resulted in a break in the documentation. See Waerzeggers 2003/2004, Kessler 2004, Oelsner 2007 and Baker 2008.

[13] Important studies are: Krückmann 1931, Lewenton 1970 and Doty 1977 (all of which are based on textual material from Hellenistic Uruk). See also Oelsner 1978 and 1981.

[14] See the discussion in Stolper 1994.

prices (slaves, livestock, houses and arable land), rents and wages (house letting and boat rentals; hirelings and slaves), interest rates (silver and staple goods) and rations for temple personal. The paucity of the data that is to be found in our material notwithstanding, at least some data sets lend themselves to comparison with the well-documented 'long sixth-century' in order to discern a few (diachronic) trends or some (synchronic and diachronic) patterns. In the present study, (a) slave prices, (b) house rents, (c) interest rates (silver) and (d) rations shall be investigated. The selection of these particular data sets is based on the following considerations: each data set has sufficient attestations to cover (a large part of) the period under consideration (this does not apply to slave prices; however, slave prices are to be considered anyway, as they are an important source of information for the development of prices in general in the 'long sixth century')[15]; surveys of attestations from the sixth-century corpus have been compiled by earlier studies (this does not hold true for the house rents, for which a corresponding survey is given below); and the categories treated here are not included in the Astronomical Diaries and hence offer complementary data. Note that there are too few attestations to allow for a statistical treatment of the material presented here. On the basis of new data, the present study rather aims to re-examine price trends and so forth that have been described by previous studies.

In the following sections, the data sets under consideration shall be presented; a summary of the principal findings is given in section 4.

3.a. Slave prices

The table and scatter graph in Jursa 2010, 741-44 contain ninety slave price observations (adult male slaves) from the 'long sixth century' that were mostly gleaned from slave sale contracts from private archives. A detailed discussion of the distribution of price attestations throughout the 'long sixth century' can be found *ibid*. 744. The mean price is 64.65 shekels, the median price, 58 (~ 600-480 BC).

[15] See Jursa 2010, 233f. and 741ff.

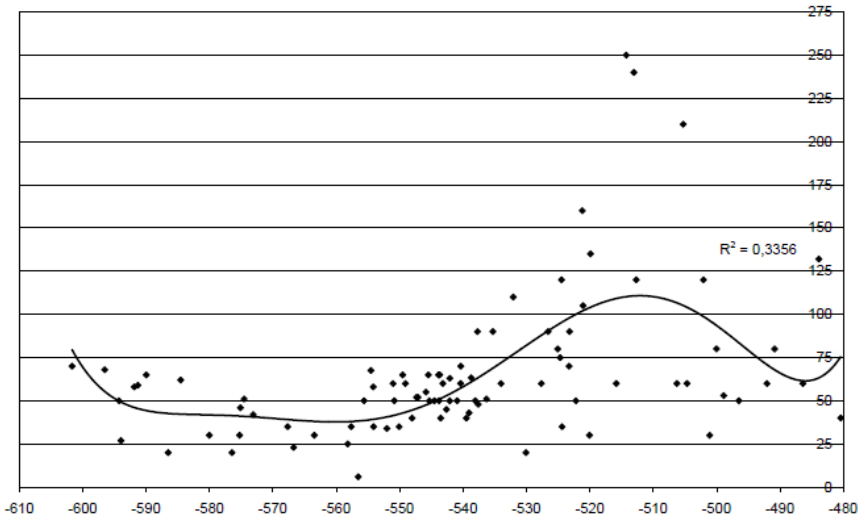

Fig. 1: slave prices in the sixth century (taken from Jursa 2010, 744 Fig. 27)

The distribution of price attestations drawn from the late material does not allow for a reconstruction of the price behaviour of the entire period. Slave price observations are only available for the fifth century (roughly until the end of the reign of Artaxerxes I). What is more, in several instances regnal years in the date formula and/or operative section of the text are lost, rendering an exact dating impossible. The mean price for adult male slaves in this period is 97.57 shekels, the one for adult female slaves is 69.5 shekels. Also note the unusually high price of the two male and female slaves sold together in YBC 11572 (7 Art I).

As has been stated above, the mean price of adult slaves for the 'long sixth century' is 64.65 shekels. For the Early Achaemenid period (1 Cyr to acc ŠE), however, the mean price is considerably higher (89.6 shekels) with price peaks during the first two decades of Dar I. It should be noted that the price observations culled from the fifth century material roughly correspond to the price level attested between -520 and -500.

Reference	**Date**	**Origin**	**Price (shekels)**
BM 40543	[...] Xer	Babylon	83
YBC 11614	[Xer/Art I]	Borsippa	80
BM 54143	8 Art I	Kutha	90
Iraq 54 135 no. 6	28 Art I	[Dilbat?]	90
VS 5 141	[39+ Art I]	Borsippa	120[16]
VS 5 142	[... Art I]	Borsippa	120
BM 54073+	[... Art I]	Kutha	100

Table 1: slave prices (adult males)

[16] Two male slaves are sold for 240 shekels.

Reference	Date	Origin	Price (shekels)
VS 5 118	8 Xer	Borsippa	120
BM 47361	23 Art I?	Babylon	68
BM 62588	35 Art I?	Borsippa region	60[17]
VS 5 128	[...] Art I	[Babylon/Borsippa?]	30

Table 2: slave prices (adult females)

Reference	Date	Origin	Price (shekels)
YBC 11568	20 Xer	Borsippa	180
YBC 11572	7 Art I	Borsippa	300

Table 3: slave prices (adult male and female sold together)

3.b. House rents

There are no comprehensive surveys of house rents attested in the 'long sixth century' and later centuries.[18] Oppenheim 1936, a detailed but to some extent outdated study on house letting in Babylonia and other aspects of rent law, only comments on the range of annual house rents, but refrains from presenting a list of the attestations.[19] This is probably because, as a rule, house rental contracts do not stipulate the size of the house or plot that is to be rented out. Hence, an assessment of the average ratio of size to house rent is impossible. What is more, houses are a commodity of very variable quality, which is rarely specified in the rental contracts at our disposal. For the present study, however, it can be argued that the range of house plot sizes (and also the quality of the houses rented out) was more or less the same during the entire period under discussion.[20] A comparison between the annual house rents attested in the sixth century corpus and those dating from the post-484 BC period thus seems warranted.

For the purpose of comparing house rents throughout the 'long sixth century' and later centuries, attestations from the sixth century corpus have been collected as well. The table and scatter graph below contain 51 house rents. Only complete houses have been taken into account (rental contracts concerning the letting of side wings[21] and other parts of the building were not included). Most house rents were gleaned from house rental contracts from private archives (Egibi, Nappāhu, etc.).[22] House rents paid in kind ('*Alimentations-Mietverträge*')[23] have not been taken into account.

[17] Three female slaves are sold for 180 shekels.
[18] Note that the Babylonian private house of the first millennium BC will be treated in Baker, forthcoming.
[19] Oppenheim 1936, 64.
[20] The majority of the textually 'attested' houses measure well below 200 square metres. See Baker 2004, 56-62.
[21] On side wings see most recently Baker 2008a.
[22] On these two major archives see Jursa 2005, 65f. and 68f. with basic bibliographical information.

Reference	Date	Origin	House rent p.a. (shekels)
YOS 17 5	13 Nbk II	Babylon	6
NCBT 899	18 Nbk II	Babylon	12
BM 29748	41 Nbk II	Borsippa	18
NBC 4513	1 AM	Uruk	20
VS 5 23	4 Nbn	Babylon	10
YOS 6 85	4 Nbn	Uruk	8
Nbn. 224	5 Nbn	Babylon	24
Nbn. 238	6 Nbn	Babylon	32
Nbn. 500	11 Nbn	Babylon	35
Nbn. 597	12 Nbn	Babylon	12
VS 5 32	13 Nbn	Babylon	8
Nbn. 1030	17 Nbn	Babylon	13
BM 114446	acc Cyr	Uruk	6
Cyr. 228	6 Cyr	Babylon	10
AnOr 8 58	7 Cyr	Uruk	10
BIN 1 118	8 Cyr	Uruk	20
Camb. 117	2 Cam	Babylon	23
Camb. 182	3 Cam	Babylon	16
Camb. 184	3 Cam	Babylon	7.5
BM 26689	1 Nbk IV	Borsippa	6
VS 5 59	1 Dar I	Babylon	6.5*
Dar. 25	1 Dar I	[...]	20
VS 5 61	2 Dar I	Babylon	15
Dar. 64	3 Dar I	Babylon	50
BM 26566	3+ Dar I	Borsippa	24
VS 5 64	4 Dar I	Babylon	18
VS 5 67	5 Dar I	Babylon	13
Dar. 191	5 Dar I	Babylon	30
VS 5 67	5 Dar I	Babylon	13
VS 5 68	5 Dar I	Babylon	25
CTMMA 3 97	8 Dar I	Babylon	18
JCS 28 no. 46	9 Dar I	Babylon	24
BRM 1 74	9 Dar I	Babylon	13
Dar. 256	9 Dar I	Babylon	15
BM 96160	9 Dar I	Borsippa	30
VS 6 201	11 [Dar I]	Babylon	20
Dar. 330	12 Dar I	Babylon	30
NBC 6208	13 Dar I	Sippar	30
Dar. 378	14 Dar I	Babylon	50
Dar. 424	14 Dar I	Babylon	15*
VS 5 78	15 Dar I	Babylon	15
VS 5 81	16 Dar I	Babylon	13
VS 5 82	16 Dar I	Babylon	20
Dar. 428	16 Dar I	Babylon	8
NBC 8406	16 Dar I	Borsippa	8

[23] See Ries 1993-1997, 176.

VS 5 84+	18 Dar I	Babylon	20
Dar. 485	19 Dar I	Babylon	25
Dar. 499	20 Dar I	Babylon	33
VS 4 154	20 Dar I	Babylon	18*
BM 96183	20 Dar I	Borsippa	30+
BM 25628	34 Dar I	Borsippa	7

Table 4: house rents in the sixth century and later (* = the rent actually specified is a monthly one or given for several months)

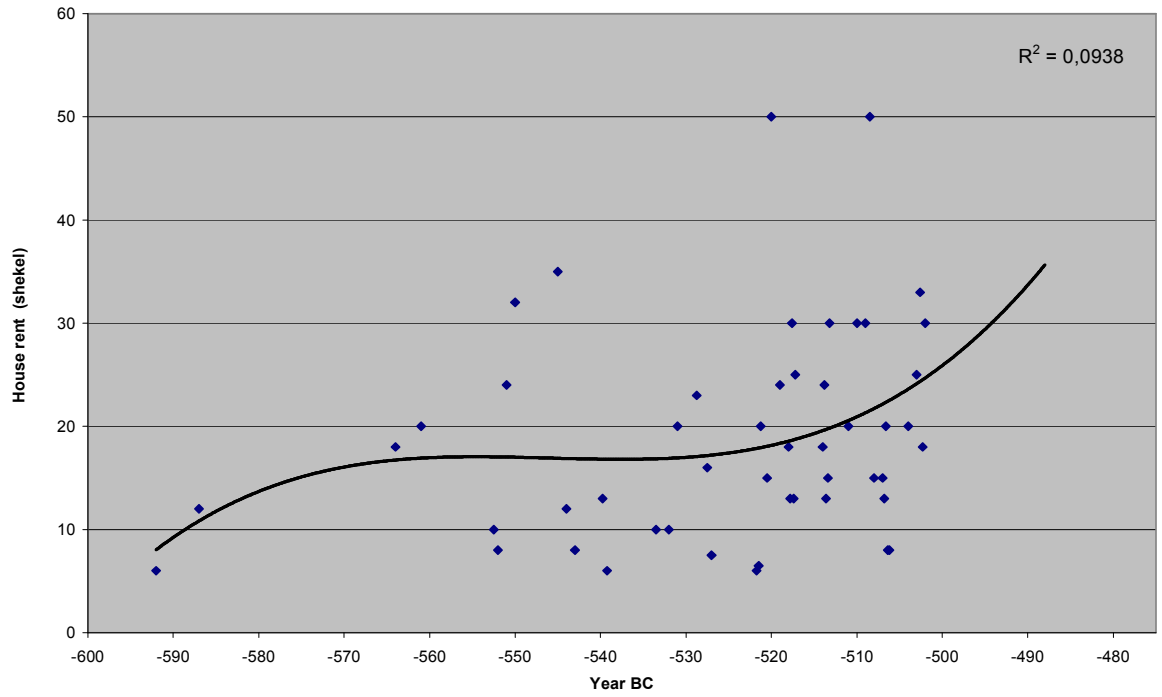

Fig. 2: house rents in the sixth century

The distribution of house rent attestations throughout the century is sufficiently even to allow a reconstruction of the development of house rents from the later half of the reign of Nbn until the end of the sixth century. Rents remain fairly stable until close to -525. Then they rise and peak towards the end of the century. This trend is quite similar to that of land prices at that time (see the paper of M. Jursa). The mean price of house rents is 18.69 shekels, the median price 18. Despite the fact that the r^2 (coefficient of determination) is unsatisfactorily low, the price behaviour shown in the graph fits the general trend, as is suggested by land prices and the prices of other commodities.[24] This becomes also evident if one limits oneself to rents prior to the reign of Dar I (roughly -520) on the one hand, and to rents postdating -520 on the other hand, the results are as follows: the mean price until -520 is 14.83 shekels and 21.65 after -520.

[24] See the graph in Jursa 2010, 746 Fig. 28.

House rents in the post-484 BC period are very similar to those of the sixth century. The arithmetic mean of the house rents given below is 17.43 shekels. Unfortunately, it is not possible to illustrate the data from the post-484 BC period in a scatter graph, as some of the attestations dating from the reign of an Artaxerxes cannot be attributed to one of the three kings bearing that name. What is more, there are not enough data to investigate the subsequent development during the transition from Achaemenid to Macedonian rule and the following Seleucid period.

Reference	**Date**	**Origin**	**House rent p.a. (shekels)**
BM 79000	1 Art I		20
BM 54078 = RA 97	7 Art I		20
NBDMich. 2	9 Art I		6
NBDMich. 13	9 Art I		12
NBDMich. 14	9 Art I		16
VS 5 119	8 Art II		20
TEBR 72	35 Art II		48
OECT 12 A 79	43 Art II		30
BM 95518	[28] Art I/II		14
BM 36322	1 Art		20
BM 40786	[...] Art		20
ZA 3 152f.	[... Art]		6
BM 47469	8 Phi		6
CT 49 107+	37 SE		6

Table 5: house rents in the post-484 BC period

3.c. Interest rates for silver

A comprehensive study on interest rates in the 'long sixth century' and later centuries can be found in Jursa 2010, 490-499. The following is a brief summary of the principal findings presented there. In the sixth century, rates below twenty percent *per annum* must be considered exceptional. Occasional deviations from the twenty percent rate are most likely to be the result of negotiations between the parties. From the reign of Artaxerxes I interest rates tend to exceed twenty percent more often – based on the data gleaned from Late Achaemenid texts, it seems that interest rates of twenty to forty percent p.a. have been the norm in this period.[25]

Little can be added on the basis of the new textual material from Northern Babylonia. Only some additional attestations of the twenty percent rate show that the standard rate of the 'long

[25] A detailed discussion of recognized standard interest rates regulated by the *nishu* ("tariff") clause can be found in Jursa 2010, 494ff.

sixth century' was more frequently used in the fifth century than is suggested by Tab. 57 in Jursa 2010, 497ff. However, this has no bearing on the general trend of the development of interest rates. Interest rates of less than twenty percent appear frequently only in the seventh and early sixth century, interest rates above twenty percent are common in the fifth century and later. The trend towards rising interest rates continues into the Early Seleucid period during which rates of forty percent p.a. are attested quite frequently.[26]

Reference	**Date**	**Origin**	**Rate (percent, p.a.)**
BM 54670	15 Xer	[Babylon]	20
BM 54671	11 Art I	Kutha	20
BM 54066	20 Art I	[Babylon]	40
AMI 23 175f.	28 Art I	Borsippa region	20
OECT 10 205	30 Art I	Kiš	24*
BM 46716	31+ Art I	Babylon	20
BM 54674	32 Art I	Babylon	20
BM 40550	2 Dar II	Babylon	40
VAT 15755 = *FuB* 14, 23 n13	6 Dar II	[Babylon]	60
VAT 13393 = *FuB* 14, 28f. n2	7 Dar II	[Babylon]	30
BM 62456	[...] Dar II	[...]	40
AuOr 15, 186, Nr. 37	[Art I/Dar II]	[Babylon]	20
BE 8/1 121	1 Art	Borsippa	20
BM 47643	3 Art	[Babylon?]	20
BM 36359	15 Art	Babylon	40
BM 61513	18 Art	[Babylon]	20
BM 65397	25 Art	[Borsippa?]	20
EPHE 426	28 Art	[Babylon?]	40
CT 49 34	3 Ant	Babylon	40
AION *Suppl.* 77 A2-6	4 Ant	Babylon	40
AION *Suppl.* 77 A2-10	6 Alx IV	Babylon	40
BM 46856	35 SE	[Babylon?]	20
CT 49 106	35 SE	Babylon	40
CT 49 111	42 SE	Babylon	40
BM 31454	44 SE	Babylon	80
AION *Suppl.* 77 no. 15	[35-46] SE	[Babylon]	40
BM 31728+	51 SE	Babylon	40
CT 49 116	[35-49] SE	[Babylon]	40
CT 49 112	[35-55] SE	[Babylon]	40
CT 49 121	54 SE	[Babylon]	40
BM 41582	116 SE	Babylon	23.75
Persika 9 214 no. 6	135 SE	Kutha	30*

[26] On penalty clauses in the context of interest rates see Jursa 2006, 161ff.

Table x: interest rates paid in silver (* = the monthly interest rate is not calculated per mina, but on the basis of the actual debt)

3.c. Rations as salaries paid in kind

A detailed study of the diachronic development of the Babylonian institutional ration system can be found in Jursa 2008. Jursa not only demonstrates that the ration system in Babylonia underwent several fundamental changes during the first millennium BC, but also identifies the standard rations for different periods and institutional environments. The best documented cases are the ration systems of the Eanna (Uruk) and Ebabbar temples (Sippar) (both archives date from the 'long sixth century'). On the basis of the available material, he concludes that the common standards for rations paid in kind were (nearly) the same in both temples. The monthly cost of maintaining an adult or trained worker ranged between 90 and 180 litres of dates or barley.[27] In view of daily energy requirements, it is assumed that a significant part was meant for exchange (supplementary foodstuff) or used to feed also eventual wives and children. The latter is also supported by the fact that women and children were normally not included in the redistributive system. The fact that the size of the rations is quite substantial is indicative of them being also used as a means of exchange. In addition, Jursa suggests to abolish the common term 'ration' in favour of 'salary (paid in kind)', since these payments do not seem to have been calculated on the basis of the nutritional requirements of the recipients, but more generally, on the cost of living.[28]

The ration lists of the Late Achaemenid and Early Hellenistic Esangila archive (comprising more than 140 of such lists of which around fifty are preserved well enough to yield usable data) suggest a different system of remuneration, apparently closely tied to the prebendary system.[29] In contrast to Sippar and Uruk ('long sixth century'), separate ration lists are drawn up for women and sons are mentioned together with their fathers, receiving the same rations. Since rations issued to a group (recipient + brother(s) and/or son(s)) are as a rule a multiple of what would have been given out to a single recipient, it is assumed that only working persons are mentioned.

According to Tab. 7 given in Jursa 2008, 90 litres seem to have been the standard ration for men and 45 litres for women. This is also corroborated by some thirty additional published and unpublished ration lists that are not included in Jursa 2008, Tab. 7. Despite the recognized standard, these lists display a great variety of rations. Jursa argues that this is to be accounted

[27] On rations paid in silver see Jursa 2008, 404ff.
[28] Jursa 2008, 411f.
[29] See the discussion in Jursa 2008, 417.

for with a different system of remuneration which was in use in Babylon at that time.[30] It seems highly unlikely that the complete absence of references to prebends in the Esangila material – e.g., the term *pappasu* being the *terminus technicus* for "prebendary income" both in Sippar and Uruk during the 'long sixth century', is never used in these texts – is indicative of the abolishment of the prebendary system. In fact, this assumption can be ruled out. Rather, one might suggest that the disbursement of prebendary income is 'concealed' by the fact that the prebend owners received *kurummatu* rations instead of *pappasu*. Also, the fact that the majority of the groups of recipients is made up by the typical professions involved in the organisation and operation of the prebendary system of Esangila (groups (2) and (3) in Jursa 2008, 417), lends additional support to this assumption. Hence, the variety of rations can be explained with the basic organisation of the prebendary system. Because the number of days per month for which the owners of the prebends received prebendary income is likely to vary with each recipient (or group of recipients), the rations given out are calculated on the basis of the actual service period. Also, the type of prebend is likely to have a bearing on how the prebend owners were remunerated for their services.[31]

As touched upon above, both group (2) and (3) of the professions receiving rations are well-attested in the Esangila archive. Recipients of group (1), the non-prebendary professions, however, are rare (note that they are not represented in Tab. 7 given in Jursa 2008 on the basis of which the 90 litres standard has been calculated). Yet there are five ration lists among the unpublished Esangila texts recording the disbursement of barley (or dates?) to professions of group (1): temple oblates (*širku*s) and reed workers.[32] It is noteworthy that the average ration paid to men of these two groups, 65 litres, is well below the standard of 90 litres per month attested for groups (2) and (3).

Text	**Date**	**Recipient(s)**	**Ration**	**Monthly Ration p.p.**	**Period**
BM 78964 (barley)	8 Art II/III	1 (x 1+)	0;1.4	60 l	[...]
BM 78976 ([barley/dates])	8 Art II/III	1 (x 5) 1+1 son	0;1.4 0;2.5.3[?]	60 l 52,5 l	MN 4-6

Table x: rations paid to *širku*s

Text	**Date**	**Recipient(s)**	**Ration**	**Monthly Ration p.p.**	**Period**
BM 87230	8 Art	1+1 brother (x 2)	0;3.2	60 l	MN [3]-4

[30] Jursa 2008, 417.
[31] See most recently Corò 2005 and Wearzeggers 2010.
[32] CT 44 80 (caption broken) also belongs to this group of ration lists, as is suggested by prosopographical evidence.

(barley)		1	0;1.4	60 l	
EAH 241 (barley)	12 Art	1+2 sons 1 1+1 brother 1 (x 2) 1+4 sons	1;2.3 1;0 0;3.2 0;1.4 1;1.4	85 l 180 l 60 l 60 l 48 l	MN 10
BM 78998 (barley)	16 Art	1+3 sons 1+2 sons 1+1 brother 1+4 sons 1 (x 2) 1+1 son (x 2) 1 1+2 brothers	1;3.4.3 1;2.3 0;3.2 1;2.0.3 0;1.4 0;2.5.3 0;1.1.3 1;0	78,75 l 85 l 60 l 51 l 60 l 52,5 l 45 l 60 l	MN 6
CT 44 80 ([barley])	17 Art	1+3 sons (x 2) 1+1 brother 1+4 sons 1 (x 2) 1+1 son (x 2) 1 1+2 brothers	1;3.4.3 0;3.2 1;2.0.3 0;1.4 0;2.5.3 0;1.1.3 1;0	78,75 l 60 l 51 l 60 l 52,5 l 45 l 60 l	MN [2]-8 MN 2-[8]

Table x: rations paid to reed workers

4. Conclusion

The fluctuation of the commodity prices culled from the Astronomical Diaries, the (very) limited amount of usable price data (especially that of agrarian goods) and the (near-)absence of wage data from the post-484 BC period make studying price behaviour and so forth in this period difficult. Nevertheless, some general remarks based on the data sets presented above can be given anyway.

The most interesting information available concerns the house rents. The scatter graph of house rents from the 'long sixth century' is based on somewhat fewer attestations than would be desirable (i.e., eighty to over one hundred), but when compared with other price series, it is obvious that the data are very homogenous in their economic background. During the period late-Nbn-Dar I it can be demonstrated that the development of the house rents followed the prices of land (and also that of non-agrarian goods).[33] Hence, it is reasonable to assume that house rents from the post-484 BC period are also indicative of price developments during that time. Note that the price level of the house rents collected here is very similar to that attained in the second half of the sixth century, but well below the price level during the reign of Dar I.

[33] See the graph in Jursa 2011, 746 (Fig. 28) illustrating the development of the prices of agrarian and non-agrarian goods, and the graph in M. Jursa's paper on land prices.

The rations paid to male temple dependants as salaries in kind that are recorded in the ration lists from the Late Achaemenid and Early Hellenistic, 90 litres per month, roughly correspond to those attested for the Eanna temple in Uruk during the period Nbk-early Nbn.[34] Rations paid to adult males performing non-prebendary professions, however, are considerably lower. They only received an average of 65 litres per month. Since it has been shown that there is a nexus between the institutional wage standard and the general price level in the 'long sixth century' (see the paper of M. Jursa), especially the latter are important, as the may serve as proxy data for the scarce direct information on wage levels and even money wages paid to non-institutional labourers in this period. Moreover, the striking difference between the 'prebendary' and 'non-prebendary' rations can be marshalled in favour of interpreting the 90 litres payments as a combination of prebendary income and 'rations' proper. Of course, one has to bear in mind that the number of attested entries is very limited. Even small amounts of additional information might affect the calculated mean considerably.

The high prices for adult slaves attested for the post-484 BC period are unexpected, as they do not fit the rather low price level suggested by the house rents and rations. Given the scarcity of the attestations (seven), however, one should be wary of over-interpretation.

The additional attestations for interest rates paid in silver follow the general trend described in Jursa 2011, 497. The issue of the clearly increasing interest rates during the later period, also attested in the Aramaic documentation from Egypt,[35] is in need of a more detailed treatment that draws on a wider range of sources.

It has been mentioned that the scarcity of useable data is a real impediment for the study of price behaviour during the post-484 BC period. Because of that, the aim of the present paper was, above all, the presentation of new data that can be used by future studies, especially those focusing on the development of price behaviour and economic changes in Late Achaemenid and Hellenistic Babylonia in general.

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[34] The situation in Northern Babylonia (Sippar) is different. See the discussion in Jursa 2010, 296ff.
[35] See Jursa 2010, 497[2694].

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