Redistribution and Markets in the Economy of Ancient Mesopotamia: Updating Polanyi*

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Summary: Redistribution and Markets in the Economy of Ancient Mesopotamia: Updating Polanyi.

The economic historian Karl Polanyi argued that the Mesopotamian economy was dominated by a redistributive system. Institutional households (temple and palace) produced goods, which were stored in central storehouses for distribution to their personnel. Markets were of little if any importance. Recently, Assyriologists have reconsidered Polanyi's arguments in the light of new evidence and new analytical techniques. The present paper summarizes and evaluates their contributions. The main finding is that the updated version of Polanyi is largely unsubstantiated and fails to answer essential questions. On the other hand, Mesopotamia knew active markets for staples, luxuries, arable land, labor, and capital beginning as early the mid-third millennium.

Keywords: redistribution – *damkar*/*tamkāru* – capital formation – equivalence – demand/supply curve

Resumen: Redistribución y mercados en la economía de la antigua Mesopotamia: actualizando a Polanyi.

El historiador económico Karl Polanyi afirmaba que la economía mesopotámica estaba dominada por un sistema redistributivo. Los grupos domésticos institucionales (templo y palacio) producían bienes, los que eran almacenados en casas de almacenamiento para la distribución a su personal. Los mercados eran de poca importancia. Recientemente, los asiriólogos han reconsiderado los argumentos de Polanyi a la luz de nueva evidencia y nuevas técnicas analíticas. Este artículo resume y evalúa sus contribuciones. El principal hallazgo es que no se justifica una versión actualizada de Polanyi, la cual falla en responder cuestiones esenciales. Por otro lado,

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la Mesopotamia conocía los mercados activos de materias primas, bienes de lujo, tierra arable, trabajo y capital, desde tan temprano como mediados del tercer mileno.

Palabras clave: redistribución – *damkar*/*tamkāru* – formación de capital – equivalencia – curva de demanda/oferta

The vision of the Mesopotamian economy advocated by economic historian Karl Polanyi[1] assumes a redistributive system. As Jursa[2] explains, this means that institutional households (temple or palace)

> *"derived income from their own lands and the labour of their dependents, stored this wealth in central storehouses and re-distributed it to their personnel... This implies a centralised, bureaucratic management of affairs...[T]he institutional households are seen as ideally self-sufficient. This leaves little or no room for (money-based) exchange and a market system."*

In 2005 the Assyriologists Johannes Renger and Michael Jursa published papers offering a reconsideration of Polanyi's theory in the light of new written evidence and new analytical techniques. This present paper summarizes and evaluates their contributions.

With respect to the fourth and third millennia, Renger's main revision is that reciprocal exchange was less important than Polanyi had assumed. However, Renger fully agrees with Polanyi on the unimportance of markets and on the supreme importance of redistribution.

> *"Most obvious is the redistributive nature of Mesopotamian society and economy in the fourth and third millennia B.C....[P]ractically the entire populace was taken care of for their living within the redistributional system. Thus, there was neither demand nor supply to create a functioning market"*[3]

[1] Polanyi 1981 and elsewhere.

[2] Jursa 2005: 172-173.

[3] Renger 2005: 51, 54.

In fact, there is precious little that is made "obvious" by evidence from this era including, of course, documentation relating to the proportion of the population or arable land belonging to the institutional households.[4]

The documents of the third millennium do, as is shown below, reveal market behavior, independent economic agents, and privately owned land. However, Renger has elsewhere stated that

> *"The mere existence of one or the other form of land tenure in quantitatively negligible proportions...is not sufficient as a criterion to describe the economic and social reality of a given period"*[5]

As long ago as 1931 Deimel, basing himself on data for a particular temple estimated that in the mid-third millennium temples owned most of the land in southern Mesopotamia. However, in 1952 Deimel's estimates were challenged by Diakonoff: Foster[6] explains that

> *"By recomputing the area of temple land, the size of the temple staffs, and dependent labor forces, and by comparing these figures with his own calculation of the area and population of the state to which this temple belonged. Diakonoff concluded that although the temples were of major economic importance, they were by no means the only land holders and did not comprise, as Deimel believed, the majority of the population of the state."*

Foster[7] adds: *"Diakonoff's argumentation was not much more firmly based than Deimel's but refuted his using essentially the same data and logic."* Let us next consider Renger's updated quantitative evidence. Renger[8] cites archaeological surface surveys suggesting that *"Between circa 3300 and 2400 B.C., the number of small rural settlements gradually declined, while urban settlements increased considerably in size."*[9] This finding provides the sole objective foundation for the following conclusion:

[4] See Foster 1981: 230; Van De Mieroop 2004: 59.

[5] Renger 1995: 270.

[6] Foster 1981: 228-29; cf. 2005: 75 with n. 6.

[7] Foster 1981: 228, n. 9.

[8] Renger 1995: 272.

[9] For a compact discussion of the survey evidence, see Yoffee 1995: 284-285.

> *"Nothing is known...of the **exact** quantitative relation between land held and controlled by institutional households and land held by other segments of society. An **educated guess** points, however, toward a **quantitative superiority** of arable land held by institutional households."*[10]

"Educated guesses" cannot transform evidence for increased urbanization into evidence for an increased proportion of arable land held by institutions. Urban does not equal institutional. In any event, even 51 percent ownership of arable land would represent a "quantitative superiority."

Renger also considers evidence for the later third millennium. He reports that in Ur III administrative documents from Lagash/Girsu:

> *"The amount of arable land recorded ranges from about 200 to more than 500 square kilometers in a single document. We have to compare these figures with the entire area of the whole state of Lagash of perhaps 1.000 to 1,300 square kilometers. This area includes, as far as we can determine, large stretches that were covered by swamps and other areas not suitable for agriculture."*[11]

Assume that: (1) the amount of institutional land is 500 square kilometers; (2) the area of Lagash is 1,000 square kilometers; and (3) as much as 20 percent of the area of Lagash is unsuitable for agriculture and all the bad land lies outside the institutions. If I have understood Renger correctly, these assumptions still leave 37.5 percent of Lagash's arable land outside institutional ownership. I would not characterize such a proportion as "quantitatively negligible." The overwhelming dominance of institutional households is the product of Renger's "evolutionary model," not of the evidence.

Markets in the Third Millennium

Texts of the third millennium reveal pronounced variations in barley prices. Piotr Steinkeller (personal correspondence) has called my attention to texts in which one shekel of silver purchased 10 or 20 or 120 quarts of barley. He also informs me that sale documents for barley, oil, and dates *"distinguish between the prices of the good year [Sumerian **mu- he-gal-la**] and the prices*

[10] Renger 1995: 278; emphasis added.

[11] Renger 1995: 285.

*of the bad year [**mu-mi-gal-la**]."* Beginning in the mid-third millennium, we find transactions that refer to the current price of barley in terms of copper or silver. For example, *"**ubda** 'at that time' (one gur of) barley was (worth) 1 shekel of silver" or "**ubda** 'at that time' 1 sila of barley was (worth) 3 shekels of copper."*[12] A receipt from the middle of the second half of the third millennium found at Gasur (later Nuzi) states that someone named Zuzu gave Ate, the merchant, barley that was to be sold in a nearby district. Again, texts of the Sargonic period from Tell el-Suleimah (possibly ancient Awal) show us private firms, designated *e*-PN (house of personal name), who purchased barley using sheep, pigs, cattle, onions, silver and copper and (apparently) used the barley to make interest-bearing loans.[13]

It is possible to detect the operation of the forces of supply and demand in the grain market during the later third millennium. An invasion by the Mardu had disrupted the supply of grain. The royal agent Ishbi-Erra, who had already purchased over 72,000 bushels of grain and transported it to the city of Isin (south of Nippur) complains in a letter to his ruler Ibbi-Sin (2028-2004) *"The market price of grain has reached one gur (per shekel)."*[14] The literary text called "The Curse of Agade" which dates to no later than the end of the third millennium causally links exorbitant market prices of grain, oil, wool, and fish with the breakdown of land and sea communications and drought and adds that the latter commodities were sought like "good words."[15]

Renger maintains that the "general principle" of the households was autarky. However, they participated in international trade in order to obtain woods, metals, and prestige goods not available in Mesopotamia. Traders "who were dependent members of these households" conducted this commerce, Renger[16] claims. By the end of the third millennium Babylonia was a leading exporter of woolen textiles.[17] A number of cities possessed large workshops employing hundreds of women in spinning and weaving. Two southern cities, Ur and Girsu, had large textile industries and exported woolen cloth to the Persian Gulf in exchange for copper. It seems probable that palace and

[12] See Powell 1990: 89, 91; *sila/qa* equals almost one quart.

[13] Visicato 1999: esp. 20-2, 24; Visicato, however, does not believe the firms were private.

[14] Michalowski cited by Frayne 1997: 367.

[15] Cooper 1983; Silver 2004: 66.

[16] Renger 2005: 53.

[17] See, e.g., Leemans 1960: 98-99, 140; 1968: 179.

temple participated in the textile export business. On the other hand, Renger's suggestion that the long-distance trade was entirely in institutional hands goes beyond the evidence and, as we shall see, it does not fit well with what is known about *damkar*'s "merchants."

Damkar's do not appear on royal ration lists in the Ur III period. Further, during this era, the seals of *damkar*'s do not depict royal presentations (i.e., an individual before a seated king), and in only one case is there a royal-name formula. The implication of this, Winter[18] suggests, is that these traders were not members of the bureaucracy or employees of the crown. That *damkar*'s in the third millennium were not necessarily ration receiving institutional personnel is also indicated by evidence suggesting that they were taxed.[19] Certainly, *damkar*'s owned business capital. The Umma text Nikolski 2 447 demonstrates that a merchant named Ur-silaluh who worked with the palace possessed an *e-ganba* "granary/warehouse" in which he kept *"forty-five bushels of barley, and four kurkudu jars of oil, as well as two containers with tablets."*[20] Umma merchants also owned ships which they might lease or sell.[21] On the other hand, palace employment for some *damkar's* is signaled by texts from Nippur (NATN 166) and Lagash (MVN 7 274:15: MVN 11 65: 15) showing that they might possess plots of plots of land from the palace.[22]

Renger[23] grants that there was trade in locally produced goods:

> *"They were, for instance, plow-animals, donkeys, sheep and goat, but also cereals that were not available or in shortage in a particular institutional household. The exchange took place in the form of institutional exchange between these households. Some of the* **equivalent** *for goods received was in silver" (emphasis added).*

Snell,[24] who studied Ur III texts of silver-balanced accounts from three merchants composed in one city in the same month of the same year, found

[18] Winter 1987: 79.

[19] Compare Renger 2003: 23-4 and Steinkeller 2004: 107-108.

[20] Steinkeller 2004: 100-102.

[21] Steinkeller 2004: 102, n. 34.

[22] Steinkeller 2004: 103 with 97 n. 17.

[23] Renger 2005: 53-54.

[24] Snell 1982: 49.

that in terms of silver value about 90 percent of the goods acquired were of Mesopotamian origin (e.g., fish, grain, leather, wool) and only about 10 percent were of foreign origin (e.g., fruits, spices, metals). This preponderance of local goods in the accounts of the merchants does not fit well with Renger's statement that imbalances and shortages in particular households generated local trade. Further, Renger's choice of the term "equivalent" does not prove that prices were administered by institutions rather than set in open markets. Snell[25] classified Ur III prices from Umma as equivalencies if the quotations mostly showed the same price or if they were large percentage multiples of each other. He found that *"the value of goods traded without reference to an equivalency is five times as great as the value of goods that might have equivalencies."*[26] Further, the value of capital goods without equivalencies is 21 times greater than of capital goods with equivalencies. Snell[27] concludes: *"Equivalencies do not dominate, and Polanyi is irrelevant for most of the products with which the Umma silver balanced account system deals."* Also inconsistent with administered trade and dependent traders is the entry in *CAD* (s.v. *ibissû* 2) suggesting that the Sumerian term *i-bi–za "in the meaning 'commercial losses' is quite frequent up to the Ur III period."*

In mid-third-millennium Girsu the excavators uncovered not only drains, large tanks, complete and stacked fish skeletons, and other evidence suggestive of a fish-processing industry but a text attesting to the export of fish to another city in southern Mesopotamia.[28] There is no evidence that the fish processing installations belonged to institutional households.

There was a market for fields and orchards. Sumerian texts of the third millennium refer to *gan-sam* "saleable land."[29] Moreover, the records of northern *and* southern Babylonia dating from the third millennium, the most ancient available, provide ample and conclusive evidence of sales of fields to (invariably) individuals by individuals. Thus, numerous tablets of the mid-third millennium from Shuruppak (current Fara), located south of Nippur in south central Iraq show us field sales. Usually the contracts involve a single field but there are also contracts recording field purchases by one buyer from

[25] Snell 1991.

[26] Snell 1991: 134.

[27] Snell 1991: 135.

[28] Crawford 1973: 234-235.

[29] Diakonoff 1996: 55.

many sellers.[30] In addition, in the mid-third millennium we have a text from Lagash (southern Babylonia) listing among the sellers of parcels of land the *lugal.gana.me* "big ones of the land," whose number includes a woman, and the *tur.gana.me* "small ones of the land," also including a woman.[31] Texts of this era record that the price of land is given to a specifically named individual seller.[32] We also find sellers being designated as *be-lu gan* "lords of the field." We have no undisputed Ur III arable land sale texts. However, there are three contracts for the sale of KI.UD "empty/uncultivated" land (21, 26a, 125). Text 21 is for the sale of "One *iku* of land in an orchard;"[33] Text 26a sells "Five(!) *iku* of an orchard, planted with date palms, (and) one *iku* of uncultivated land, (both located in) the field of Du-anagula."[34] It is also known that Ur III individuals owned and conveyed arable lands by inheritance. This is rather clearly demonstrated in a legal text from Nippur (NATN I 302 = CBS 9792) wherein a woman named Geme-Suena sued to recover fields bequeathed to her deceased husband by his father.[35]

Basing themselves on the professions and titles of buyers and sellers, Gelb, Steinkeller, and Whiting[36] conclude that in the third millennium

> *"practically anyone could be either a seller or a buyer. This is especially important for the fields, since this evidence shows that landed property could be sold and consequently 'owned' by private persons and not exclusively by the temples or palace."*

Contrary to Renger[37] the sellers, and those of their counterparts who did not choose to sell, were owners, not merely "holders" or "small-holders" of arable land. Further, there is no evidence that "small ones" who sold land to "great ones" were thereafter incorporated into the palace economy as

[30] See Visicato 1999 and Westenholz 2000.

[31] Glassner 1989: 83-84.

[32] Wilcke 2003: 87-88.

[33] Steinkeller 1989: 191-192.

[34] Steinkeller 1989: 209.

[35] Owen 1979.

[36] Gelb, Steinkeller, and Whiting 1991: 17

[37] Renger 2005: 53, 54.

recipients of "rations in kind."[38] Neither is there evidence that those who sold land had previously been involved in "subsistence agriculture."[39] The evidence does demonstrate that individuals and institutions benefited from, invested in, transformed, subdivided, and conveyed arable land. Moreover, there is no evidence suggesting that owners were abnormally constrained in the uses to which they put their purchased or inherited fields.

There is evidence for a labor market and independent economic agents in the later third millennium. The hiring of craftsmen (Sumerian *gis-kin-ti*) for a wage by the palace is mentioned often in the Ur III period, according to Neumann.[40] Indeed, Loding[41] notes that we have Ur III examples of craftsmen paying taxes (Sumerian *ni-gu-na*; Akkadian *biltu*). This perspective is shared by Maekawa,[42] who maintains that "hired labourers constituted a major source of manpower in the Ur III period" and goes on to suggest that

> *"Although it still needs a quantitative demonstration, my hypothesis is that the personnel who served in public institutions in various specialized categories were drafted for nonspecialized labor less frequently after the pre-Sargonic period. This may have resulted in the recruitment of a vast number of hired laborers in the Ur III period. The replacement of men having specialized occupations by hired manpower in all likelihood occurred mainly in mobilizing collective labor for such projects as canal work"*

Thus, it is likely that (some) craftsmen labored in palace/temple workshops[43] but it does not follow that they were necessarily ration-receiving cogs of a "patrimonial state." The existence of craftsmen who produced for the public is indicated by an Ur III lawsuit (ITT II 3538 = NG II 131) concerning an advance payment made to the craftsman for producing an expensive chair.[44]

[38] Renger 2005: 51.

[39] Renger 2005: 52.

[40] Neumann 1993: 151; cf. Loding 1974: 23-26.

[41] Loding 1974: 142.

[42] Maekawa 1987: 69.

[43] Renger 2005: 53.

[44] Neumann 1993: 153-154.

Texts from Umma show *geme* "women" receiving grain in connection with agriculture, irrigation, building, and oil-pressing. Their grain is designated as *a* "wages." Note that *geme* does not mean "slave-woman" in these texts. Maekawa[45] observes that this term, *"which had originally meant women brought from foreign lands, was used throughout the third millennium B.C. to denote women subject to other persons or institutions."* Texts from Umma and other cities specify the daily wage paid to men for digging irrigation ditches, transporting grain, towing ships, and ploughing and sowing. Drehem's archives record the payment of in-kind wages (*a*) for labor classified as "rented," "labor supply," and "foreign." The Ur III era also knew firms employing specialist craftsmen, including smiths, carpenters, sculptors, goldsmiths, and stonecutters. The notion that free workers were able to market their services to the highest bidder seems to be implicit in "The Instructions of Šuruppak" (lines 119-23), a literary composition which may be dated to the middle of the third millennium:

> *"If you hire a worker, he will share the bread bag with you; ... Then he will quit working with you and, saying 'I have to live on something', he will serve at the palace"*[46]

Steinkeller (personal correspondence) maintains that practically all loan documents from the middle to the end of the third millennium concern loans made by private persons. Fish[47] provides examples from late third millennium Nippur in which the usual rate of interest on barley loans is $33^1/_3$ percent, but rates of $30^1/_3$ and, in one tablet, 20 percent are also found. We also have a barley loan at 25 percent.[48] Sumerian tablets dating from about the middle of the second half of the third millennium record barley loans to individuals of various occupational categories, including stockraiser, dealer in tar, tradesman, courier, and business traveler. In one instance, it appears that the borrower's purpose is to purchase a house. It is not really clear, however, whether the loans bore interest; nor is it known whether the lender(s?) "Amarezem" was

[45] Maekawa 1987: 52.

[46] Black *et. al.* 2004: 287.

[47] Fish 1938: 162.

[48] Garfinkle 2000: 313.

acting as a palace employee or as an independent businessperson.[49] One late-third-millennium text from Nippur is a loan of silver "for partnership;" another reports a loan of silver to a baker. There is also an interest-bearing loan for the barley rations of the "female mill workers." A mid-third millennium text of disputed significance from Isin in central Babylonia raises the possibility that even a field might be purchased on credit.[50]

Taking a more general perspective, Steinkeller[51] maintains that

> *"When we look at the Ur III economy, and the ancient Mesopotamian economy more broadly, there is some evidence of the fluctuation of prices, but no indication that they ever fluctuated in unison over a larger geographical area."*

In response, it might be noted that there is no indication that they did not "fluctuate in unison" (whatever exactly this may mean). We simply do not have the necessary price data. Snell looks at prices from the merchants' balanced accounts in the Sumerian city of Umma from 2044 to 2030. Snell[52] concludes,

> *"the prices in the series do not correspond to what one expects from the demand curve of classical economic theory, which should indicate the presence of a market. That is, the merchants do not buy more of a product when it is cheap and less when it is expensive."*

Demand curves relate prices of a commodity to the total quantities purchasers wish to buy. Supply curves relate prices of a commodity to the total quantities sellers wish to sell. Demand and supply set prices in competitive markets—that is, prices are set by the intersection of the demand and supply curves for a commodity. In equilibrium, the quantity demanded by buyers is equal the quantity supplied by sellers and neither buyers nor sellers are motivated to raise or lower the prices they offer or require. Snell does not realize that a time-series of observed equilibrium prices and quantities would trace out the demand curve for a commodity only in a special case: This case

[49] Bauer 1975.

[50] See Wilcke 2003: 94-96.

[51] Steinkeller 2004: 111.

[52] Snell 1991: 133.

is that the supply curve shifts over time (for example. the quantity supplied at a given price increases or decreases) and the demand curve remains unchanged. Thus, all the observed equilibrium prices are points on the demand curve. However, when prices and quantities are not at equilibrium values or when both the demand and supply curves shift over time, observed variations in prices and quantities are best described as "noise." Snell's findings are "noise." The estimation of demand and supply curves is a significant econometric problem even when contemporary data are utilized. To conclude, Renger[53] questions whether market exchange could have had "sizable dimensions." There is no quantitative evidence that would permit even a rough comparison of the relative sizes of the redistributional, subsistence,[54] and market sectors of the Mesopotamian economy. We may be confident, however, that there was market behavior in a "true sense."[55]

Markets in the Second and First Millennia

Let us turn next to Renger's vision of the Mesopotamian economy beginning in the second millennium. Polanyi had characterized the Old Assyrian trade as "administered"—that is, as nonmarket. Renger, citing the "rich data" that has become available since Polanyi put his ideas forward, almost (but not quite) affirms the demonstrable market orientation of the Old Assyrian trade. In the end he dismisses it as "an exceptional case that is to be seen against the background of the oligarchic structure or constitution of the Old Assyrian state."[56] Critics of Polanyi such as Gledhil and Larsen[57] have not taken proper account of "embeddedness" and of "the dialectical relationship between the 'state' and the individual entrepreneur or trader."[58] Nevertheless, the Assyrians trading in Cappadocia in the early second millennium were independent businessmen, not ration-receiving employees of palace or temple. The market-orientation of the Old Assyrian merchants is easily illustrated from their correspondence. We find the lament "I bought tin at a bad (price)"

[53] Renger 2005: 52.

[54] Renger 2005: 53.

[55] Compare Renger 2005: 53.

[56] Renger 2005: 50.

[57] Gledhil and Larsen 1982.

[58] Renger 2005: 50.

and the instructions "if textiles are too expensive, buy tin" and "buy (pl.) one thin textile for me and let me know the price" (*CAD* s.v. *shâmu* A.1b). Again, a merchant is informed that "since tin was in short supply we did not take a loan from a moneylender and did not make purchases for you" (*CAD* s.v. *shâmu* A.1b). Another reports that "I saw a chance to get a bargain (so) I borrowed money at interest and bought" (*CAD* s.v. *shâmu* A.1c). Silver and merchandise that are not being turned over are characterized as "hungry:"

> *"You sent me silver saying: 'It must not get hungry!' Following your instructions I have bought tin, expensive. And now this tin has become hungry over there. But today tin is available at a price of 16 (shekels) for 1 (shekel) of silver and even more!"*[59]

As a final example, note the wife who scolded her merchant husband saying *"You love only money, and you hate your own life!."*[60]

Renger continues that the second millennium witnessed the growth of "tributary forms of the economy" by which he means that

> *"the agricultural holdings of the institutional households or oikoi were assigned in small lots to individuals.... House, orchard, and field were assigned to a person and his family who in turn had to render services or deliver part of what they had produced to the palace"*[61]

Be this unexplained trend as it may, Renger does not discuss or mention the rich documentation for markets in the second millennium and thereafter.[62] Significantly, the phrase *machīrat illaku* "at the going market price" occurs frequently in texts of the Old Babylonian period (*CAD* s.v *machīru* 4). In this period sales of fields are documented not only in the north but also in the south. This is important because the south is the final fortress of the theory that the Mesopotamian economy was dominated by a redistributive system. For northern Babylonia, Renger[63] surveys more than 500 sale contracts for houses, orchards and fields: *"A very considerable part deals with the sale*

[59] Veenhof 1987: 62.

[60] Larsen 1982: 42.

[61] Renger 2005: 54.

[62] Silver 1995; cf. 2004.

[63] Renger 1995: 301.

of fields from one private individual to another." Renger[64] reports that of about 250 sale contracts dating to the first half of the eighteenth century for a combination of three southern cities (Ur, Larsa and Kutalla): *"Most of them concern houses and orchards.* ***Not quite ten percent deal with fields****"* (emphasis added). Renger[65] struggles unsuccessfully to negate his not quite 25 southern field sales by suggesting that they *"pertain to very small plots, marginal land, or a combination of both."* To begin with the obvious: whether about 25 out of 250 cases should be considered common or uncommon would of course depend on the (unknown) distribution of southern land among houses, orchards and grain fields. This distribution would of course be determined by a variety of economic and environmental variables. The fact is that Renger's pronouncements about the absence of a market for arable fields in the south are incorrect.

Moreover, a strong testimony to the conception of private property in arable land is provided by an Akkadian letter of the eighteenth century B.C.E. from Mari. The letter (number 45) was written by king Zimri-Lim to Yaqqim-Addu, governor of Saggaratum. A man protested to the king that a royal official had tried to take away his field in the following terms: *"I hold 10 dikes of field (an item of) the last will (of my father) which my father purchased for me.'*[66] In other words, the individual believed that not even the king had a right to seize his land because he had inherited it from his father who had purchased it. Unless this man was a complete lunatic there is nothing "very recent" about the idea of private property!

With respect to independent businesspersons, Renger[67] grants only that productive resources and assets owned and previously managed directly by institutional households were now rented out to entrepreneurs for payments "in kind or in silver." It may be observed that for Renger the ownership of capital goods continues to be monopolized by institutional households. However, Babylonian texts of the earlier second millennium do at least reveal granaries stated to be privately owned (or at least having no apparent connection to temple or palace) doing business with the public. Note the storehouses of

[64] Renger 1995: 296.

[65] Renger 1995: 296.

[66] Heimpel 1997: 65, n.5.

[67] Renger 2005: 54.

Taribum and Mašum in Larsa.[68] That private individuals stored grain in private granaries is confirmed by Paragraphs 120 and 121 of Hammurabi's Code, legislating default and storage charges.

Renger does not discuss the process by which "franchises" were granted. It is reasonable to assume, however, that the households used markets—that is, they compared offers/bids made by businesspersons. Neither does Renger disclose how the franchises obtained employees. There is, however, evidence that hired workers moved around to take advantage of superior opportunities. In an Old Babylonian letter (ARMT 27, 26) Zakira-Hammu, a district governor to Zimri-Lim ruler of Mari, explains that hired workers "*who earn their living at the time of harvest"* departed his district for greener fields when the *"locust ate the grain.'*[69]

Also not discussed by Renger is the question of how/where the entrepreneurs disposed of their production. This problem seems easily solved. The franchises sold their products in the market to private individuals. In this connection, Jursa[70] calls attention to market transactions (often called *Palastgeschäfte* "palatial business") in which *tamkārum* "merchants" were very much involved especially at Old Babylonian Larsa.[71] In addition, for the Old Babylonian period, taken as a whole, there is much evidence of independent commercial activity. Thus, an Old Babylonian partnership contract from Ischali states,

> *"1 mina partnership money, at the beginning of the trading journey, from Bur-Sin did Naram-ilishu son of Sin-bani borrow. He will go; he will return and present his report to (his) principal. (If) he has entrusted (goods to another or if) he has left them behind, out of his own capital he must pay it back; (any merchandise) entrusted (or debts) outstanding the principal will not acknowledge"*[72]

An especially interesting testimony to independent commercial activity is visible in two liver omen texts. One Kurû, probably to be identified with a contemporary *tamkāru* of the same name, sacrifices lambs in order to

[68] Breckwoldt 1995-1996: 77-78.

[69] Heimpel 2003: 420.

[70] Jursa 2005: 182.

[71] See Stol 1982.

[72] Greengus 1986: 185.

foresee whether his affairs will prosper. Both texts refer to prospective sales in the market: *ina sūqīshīmāti*, literally, "in the buying streets." One text asks whether Kurû is going to make a profit (*nēmelu*) on some kind of (gem?) stone; the other asks the same question about the sale of *sachirtu* "market/ trade goods."[73] Evidence of commercial activity becomes sparse after the Old Babylonian period and becomes more plentiful again in the later second millennium.

Despite leaving notable gaps, it appears that Renger is troubled that he has made too many concessions to markets for he immediately adds that the very entrepreneurs who had paid for profitable franchises (why else would they offer payment?) were nevertheless *"assigned—as everybody else—fields and orchards for livelihood."*[74] Thus, in Renger's new vision, the entrepreneurs seem to receive rations instead of the profit opportunities they paid for. Analytically this is a case of "one step forward, one step backward" or even of "forward to the past."

Jursa discusses temple economies in the period from the later seventh century onwards. He suggests that due to a "mismatch" between the land owned by temples and the number of temple agriculturalists the temples *"were forced to rent out substantial parts of their land."*[75] The temple workforce was also inadequate for carrying out tasks outside of agriculture. The "mismatch" was no doubt due to the drawing power of superior opportunities elsewhere in the Babylonian economy.

> *"The obvious alternative, hiring outside labour for wages paid in silver, was equally unsatisfactory since these workers demanded very high wages when they knew that the temple was under pressure"*[76]

In the end, however, the temples had to depend on outside labor hired at the going market wage.[77] The "traditional" redistributional system was supplemented or even supplanted by a market-oriented one.[78] New Babylonian

[73] Wilcke cited by Powell 1999: 11.

[74] Renger 2005: 54.

[75] Jursa 2005: 173.

[76] Jursa 2005: 175.

[77] Jursa 2005: 176.

[78] Jursa 2005: 179.

temples regularly sold dates and wool on the market.[79] The sellers were usually "middlemen" who

> *"had control of the management of the relevant branch of the temples' economy... Instead of receiving the proceeds of the business which had been farmed out, the institutions preferred sometimes easily hoardable cash"*[80]

The emergence of "tributary forms of economy" is a tribute to the vigor of markets in both the Old and New-Babylonian periods.

Money, Investment and Economic Growth

Renger proceeds to consider the relationship between money and investment:

> *"What happened to the silver in circulation and not hoarded? It mostly served trade purposes, i.e. the acquisition of strategic goods and prestige objects. But there was practically no capital investment for productive purposes"*[81]

What does Renger mean by this? He cannot possibly mean that ancient Mesopotamia did not form capital goods. The covering of southern Mesopotamia with large groves of sucker-propagated date palms provides an outstanding example of this process. I suspect that Renger means that "money," which he mistakenly identifies with "markets," played no role in capital formation. (This suspicion is perhaps confirmed by Renger's[82] citation of economist Piero Sraffa's work on *Production of Commodities by Means of Commodities*.) The essence of investment is the use of today's resources to increase tomorrow's production/income. Markets and investments do not require the transfer of money. (Compare Goddeeris[83] who relies on Webster's Dictionary instead of a standard economics textbook.) Thus, Paragraphs

[79] Jursa 2005: 180.

[80] Jursa 2005: 182.

[81] Renger 2005: 55-56.

[82] Renger 2005: 57.

[83] Goddeeris 2002: 393.

60 to 65 of Hammurabi's Code and contemporary business documents are concerned with the giving out of grain fields to "gardeners" for conversion into much more valuable date orchards. A field and meadow along the Urash canal in Dilbat belonging to Nahilum was leased for three years to Puqussum

> *"in order to put down (boundary) stones and to grow (date palms). Puqussum will claim for the 3 years growing of date palms (everything) which (could be grown) in the meadow and in the midst of the field, as much as there is, and also by the scraps (of plants) of the meadow"*[84]

Apparently, no cash changed hands but Nahilum and Puqessum, and all the others were obviously involved in a market transaction whose aim and outcome was capital formation for the owner and income for the contractor. Further, Renger states that silver was used to purchase "strategic goods" such as metal and wood. Some of this material was used to fashion plows and other capital goods. Therefore, money clearly played a role in the process of capital formation.

Indeed, the early part of the second millennium provides numerous lending contracts of an entirely commercial nature.[85] For example, a man of Ur grants many small loans to individuals for investment in a maritime expedition.[86] A woman of Ur lends three partners barley and silver for hiring a crew and boats for a trading venture. Temple loans made jointly by a private person and the deity sometimes expressly state that the loan is for business purposes In many other examples the purpose is not stated, but the amount of silver seems too large for consumption purposes. There were also in Old Babylonian times loans made for purchasing land.[87]

At the end of his paper Renger turns to the problem of economic growth, a topic not considered by Polanyi. His central argument is that

> *"There was no **major** technological progress in Mesopotamia over many centuries or even millennia which could have generated a **significant** quantitative productive output. Once the basic technological breakthrough in metallurgical skills and in ceramic*

[84] Koshurnikov and Yoffee 1986: 123-124.

[85] See e.g. Goddeeris 2002: 134-135, 197.

[86] Van De Mieroop 1989: 399.

[87] CT 33 29 translated by Westbrook 2001: 76-77.

> *and textile production (loom), as well as in building and agricultural techniques and the division and organisation of labor was achieved in the fifth and fourth millennia B.C. no further* ***substantial*** *developments can be observed for the following periods of Mesopotamian history in the area of* ***sophisticated and advanced*** *technologies using for instance water and wind as sources of energy."*[88]

The citation of examples from later periods would not prove Renger wrong given his use of terms such as *"major, significant, substantial, and sophisticated and advanced"*! At this time I would only note that there is more to economic growth than technological change and, further, that there is no reason to believe that ancient Mesopotamia (and other pre-industrial economies) could have experienced anything like contemporary rates of growth. (I discuss this problem in a forthcoming article.[89])

Concluding Remarks

Institutional households certainly played a major role in the Mesopotamian economy. However, the evidence does not demonstrate that they monopolized economic life. On the other hand, there is convincing evidence for active markets for staples, luxuries, arable land, labor, and capital. The relative importance of households and markets or as the economist might put it of hierarchies and markets cannot be quantified. It is likely that the importance of markets relative to hierarchies varied over time. I would surmise that markets were especially important in the mid-third millennium, early second millennium, and mid-first millennium.

A basic problem with Renger's vision of the Mesopotamian economy is its uncritical nature. He takes redistribution by Mesopotamian institutions as a given. That is, Renger never analyzes the questions of origin. How did a relative handful of individuals manage to acquire control over so much productive wealth? Who redistributed this wealth to the redistributors? Did the wealth originate in a "primitive accumulation" along the lines imagined by Marx and later implemented by Stalin? Was there a forced collectivization campaign? Command economies are not noted for the creation of great societies. On the other hand, the propensity of individuals to "trade, truck, and

[88] Renger 2005: 58; cf. 60; emphasis added.

[89] Silver 2007.

barter" has often been observed. Indeed, even Lenin had to rely on markets to save his socialist experiment. Did the (alleged) redistributional economies of the fourth and third millennia rise on the ruins of earlier market behavior? Did the market economies of the earlier second millennium rise on the ruins of the redistributional (better regulatory) economy? Renger[90] confines himself to the remark that

> *"Practically the entire populace was –**as a result of a long-lasting process**— integrated into these [palace and temple] institutional households, thus being part of a redistributional system encompassing the entire state or perhaps better the entire realm" (emphasis added).*

Similarly, Renger does not explain the rise of "tributary forms of economy" beginning in the second millennium. In order to develop a new vision of the Mesopotamian economy the economic forces driving such transformations need to be documented and understood. A final problem is that Renger does not attempt to integrate the (alleged) technological stagnation of Mesopotamia into his theory of a redistribution-dominated economy.

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[90] Renger 2005: 53.

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