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VINCENT J. ROSIVACH

Some Economic Aspects of the Fourth-Century Athenian Market in Grain

Much recent discussion about the ancient Athenian economy has been dominated by the question of whether it was «embedded» (to use KARL POLANYI's term¹), i.e. that it was shaped by broader forces of culture, custom and social organization, or, like a modern capitalist economy, it was autonomous, informed by recognizably economic principles independent of broader traditional forces. Simple dichotomies like «embedded» vs. «autonomous» (or «primitive» vs. «modern») properly make us suspicious. If, however, we keep in mind the complexity of the Athenian economy, examining it segment by segment, the concept of «embeddedness» (and the consequent question of «embedded in what?») can still be a useful heuristic tool for investigating the nature of these individual segments. The present essay examines the several segments of one sector of the fourth-century Athenian economy, its markets in cereal grain, concentrating particularly on pricing mechanisms, the heart of «modern» competitive supply-and-demand economics. Its goal is to see where and how the distribution and sale of grain and grain products were organized along economically rational lines and where they were influenced by other factors beyond simply supply and demand.

As is often the case with questions of Athenian social history, evidence is scanty, and scholars have tended to treat synchronically data from a variety of sources covering an extended period of time, even while realizing that the details of a public policy as important as that of grain supply² were unlikely to

¹ See e.g. his chapter «Aristotle Discovers the Economy» reprinted in POLANYI (1968) 78–115; for an excellent introduction to POLANYI's thought see DALTON (1968). For convenient surveys of modern views on the ancient Greek economy see AUSTIN and VIDAL-NAQUET (1973) 3–8, and BURKE (1992) 199–201 (under the labels «modern» and «primitivist»), both with notes. The bibliography of ancient historians either adopting or opposing POLANYI's views is too extensive to review conveniently here.

² On the significance of the grain supply as a political issue, note that the topic *peri sitou* was important enough to be on the agenda of the Athenian assembly at the *kuria ekklesia* of each prytany, at least when the Aristotelian *Athēnaiōn Politeia* was written (probably in the late 330's or in the 320's; on the date see RHODES [1981] 51–52). Earlier in the fourth century the grain supply was one of the topics in which, according

remain the same over a century or more. In what follows I have tried to call attention, where appropriate, to the dating of individual details while assembling what I hope will be a synthetic picture of Athens' management of her grain supply, one in which different actions taken at different times can be seen to reflect consistent assumptions about the grain supply and the appropriate role of the *polis* in its regulation.

A final prefatory note, on terminology. The term «market» will appear frequently in this essay, and is to be understood in its simplest economic sense as «the institution through which buyers and sellers interact and engage in exchange».³ In a market thus broadly defined, prices may be *but are not necessarily* set by the self-regulating mechanism of supply and demand (as they are, by definition, set in the more narrowly defined autonomous competitive market of classic laissez-faire capitalism). «Embedded» markets structured in whole or in part by social rather than strictly economic concerns are still markets, and not simply systems of redistribution or reallocation.⁴

1. The Consumption of Cereal Grain

A major part, perhaps as much as 70% to 75%, of the caloric intake of a typical Athenian came from the consumption of bread and other products made from *sitos* (cereal grains), principally wheat and, especially, barley.⁵ In terms of wheat, this amounted to over 7.5 *medimnoi* (roughly 236 kg) or cereal grain per year, or about 650 kg (almost 1.5 lbs) per day for an adult male, with women and children consuming proportionately less; figures for barley consumption would be even higher.⁶ There is no evidence that the role of grain

to Xenophon, Socrates thought the budding statesman ought to be versed (Xen. Mem. 3.6.13; cf. Aristot. Rhet. 1360^a 12–15).

³ CASE – FAIR (1989) G6.

⁴ Cf. VON REDEN (1995) 105–11 on the Athenian *agora* as a locus simultaneously of commerce, social display, and political exchange.

⁵ On the meaning of *sitos* see MORITZ (1955) 135–38. The figures of 70–75% is from FOXHALL and FORBES (1982) 74, who offer it as a suggestion, «given the presently available evidence». On the importance of barley in the Attic diet see GALLO (1983). Most barley was processed into *alphita* (a coarse flour made from roasted barley with the inedible hulls removed), which was in turn made into *maza* (a kneaded mixture of *alphita* and moisture in some form, which was consumed unbaked); on *alphita* see MORITZ (1949); on *maza* see AMOURETTI (1986) 124–26. Barley was usually not made into bread: note that at AP 51.3, the *alphita* sold by millers are parallel to the loaves of (presumably wheat) bread sold by bread-sellers.

⁶ These calculations of wheat consumption, which are to be considered as approximations, are based on a daily ration of 1 *keboinix* = 1/48 of a *medimnos* (ἡ γὰρ χοῖνιξ ἡμερησία τροφή, D.L. 8.18; cf. Hdt. 7.187.2) and the equivalence of 5/6 *medimnos* of wheat = 1 talent (= 25.86 kg: OCD³ s.v. «weights») found in Agora inv. no. I 7557, recently published by STROUD (1998), lines 21–23. For purposes of comparison, FOX-

products as a dietary component varied significantly according to gender, age, class, or place of residence (urban vs. rural).⁷

2. Domestic Production of Cereal Grain

Generally speaking, Athenians obtained their cereal grain in two different ways: those who lived in the urban agglomeration of the Peiraeus and the *astu* bought it, and those who lived in the countryside grew it.⁸ Although the major focus of this essay will be on grain for urban consumers, it will be helpful, by way of background, to say a few words first about rural grain production and exchange.

While there were a number of large-scale farmers who grew cereals for the urban market,⁹ by far most farmers in Attika were small-scale «subsistence»

HALL and FORBES, who worked with modern grains and before the publication of Agora inv. no. I 7557, give a heavier weight of 839 kg per *khoenix* of wheat = roughly 306 kg per year ([1982] 86–87), which they call a «generous sufficiency» (p. 57); in contrast, GARNSEY (1993) seems to be well on the low side when he gives 150 kg as a minimum per person/year (p. 91), and 175 kg per person/year as «likely» (102, Table 7), but his figures are presumably adjusted downward to include women and children (cf. also GALLO [1984] 41). As FOXHALL and FORBES note (p. 73), the one-*khoenix* daily ration probably included a margin for losses from processing and storage (on which see ENGELS [1978] 123–24). Barley, on the other hand, is 1/5 lighter by volume than wheat (1 *medimnos* of barley = 1 talent, Agora inv. no. I 7557, lines 23–24), so a greater volume of barley must be consumed than that of an equal weight of wheat. Consumption levels are further complicated by the fact that barley must first be processed into *alphita* before it can be consumed. According to FOXHALL and FORBES, wheat and *alphita* have roughly the same caloric content by weight, but a given volume of *alphita* weighs less than an equivalent volume of wheat (about a fifth less by their calculation [p. 94]), which means that much more *alphita*, in terms of volume, would have to be consumed than wheat for the same output of calories. (It also takes more than a *khoenix* of barley to make a *khoenix* of *alphita* – removal of the hulls by itself reduces the volume of the barley; *alphita* are also more compact than the original barley – but given our poor knowledge of Athenian grain milling techniques, it is impossible to say how much more unprocessed barley would have been needed to make a *khoenix* of *alphita*.)

⁷ Though for reasons which we shall see below (at notes 84–86), the amount of wheat consumed by city-dwellers was likely to be more, and the amount of barley less, than that consumed by people living in the countryside.

⁸ Of course, wives, children, slaves and the like who were dependent on someone else received their grain (either bought or grown) from that person. Given the nature of the rural economy, I also suspect that hired hands on farms received their pay in produce from the farms' owners. Also, wealthy city-dwellers who owned estates in the countryside were probably supplied from those estates without recourse to the urban market.

⁹ Xen. Mem. 3.6.13 assumes that the first source of grain for the city will be the Attic countryside, supplemented by grain from abroad. Wealthy Athenians whose wealth was in land must have disposed of the produce of that land, including grain, in the urban marketplace because, quite simply, there was nowhere else they could sell it. For

farmers, who grew primarily for home consumption, producing (or trying to produce) enough food to meet their households' needs.¹⁰ Attic grain farming was «dry» farming, i.e. without artificial irrigation, and thus dependent for moisture upon rainfall during the fall and winter growing season. Dry farming is particularly vulnerable to interannual variations in the amount and timing of heat and rainfall. Under such conditions subsistence farmers, when they have access to enough land and labor to do so, regularly plant more than their households will need, as insurance against poor growing conditions (too little or too much rain or heat, etc.). Such overplanting, which will produce a surplus under ideal conditions, should still yield enough even under poorer growing conditions to meet their households' needs.¹¹ In good years, the planned surpluses will be available to exchange for goods (necessities¹² and occasionally luxuries) which the farmers cannot produce – or at least produce as well – themselves.

one large-scale producer of grain see Dem. 42.20 (to simplify matters here and elsewhere I have not distinguished between the speeches written by Demosthenes and those written by others and included in the Demosthenic corpus, since all are equally reliable sources for the questions under discussion here). FOXHALL (1992) is certainly correct in principle that these large-scale farmers must have owned and exploited a disproportionate amount of the cultivatable land in Attika, though her specific figure of c. 9% of the population owning almost half the land may overstate the case, and a different set of assumptions about the size of the Athenian population, etc. would yield a somewhat less striking figure. We should also not imagine that all these large-scale farmers exploited their lands directly: some, and probably most, landless *thêtes* lived by cultivating the land of others, either as renters (cf. e.g. Xen. Symp. 8.12) or as hired hands (*misthōtoi*).

¹⁰ «The model Athenian citizen was a man owning farm land, supporting his family from the produce of that land . . . with sufficient surplus to purchase the specialized goods and services beyond the capacity of his own household» (JAMESON [1977–78] 124). A «subsistence farmer» is one who nourishes himself and his household with the food he produces on land which he owns or rents for that purpose; the term does not in itself imply that the subsistence farmer is poor, much less that he and his family are barely managing to survive on a minimum («subsistence») level.

¹¹ Cf. JAMESON (1983) 7–10; GARNSEY (1993) 54. Years with less than ideal wheather conditions for wheat and barley were common enough in Attika (GARNSEY [1993] 10; GARNSEY and MORRIS [1988] 98), and in such years crop yields will have been significantly lower, but in most years at least something grew; disaster years, on the other hand, when nothing or almost nothing grows, were and are comparatively rare.

¹² We should remember that many things made of metal today were until quite recently made of wood or other vegetable material, including many farm implements (rakes, winnowing forks, etc.). Subsistence farmers naturally try to meet as many of their needs as possible through the household production of clothing, tools and the like, turning to the marketplace only for the few rare products, most importantly for the Athenians metal goods and pottery. Note in this regard the high value which the Athenians placed upon self-sufficiency (*autarkeia*).

As far as we know, there were no marketplaces (*agorai*) outside the urban agglomeration.¹³ Large-scale farmers would have disposed of their produce in the urban market, selling their grain to the same middlemen (*sitopōlai*, «grain sellers») who, as we shall see, also purchased imported grain from merchant shippers. But with *sitopōlai* maintaining inventories of up to fifty *medimnoi* (c. 2,000 kg), as we shall see, it is unlikely that they would be much interested in the modest grain surpluses generated by small-scale subsistence farmers.¹⁴ More likely, these small-scale farmers, when possible, exchanged their surplus grain and other farm produce outside of organized markets and directly with the local craftsmen who produced the goods they wished to acquire.¹⁵ Face-to-face nonmonetized transactions such as these are virtually immune to conventional market forces, not least of all because competition, the driving force of supply-and-demand pricing, is essentially absent.¹⁶ Besides, if personal relationships are to be maintained in a small, interdependent community, buyer and seller must strike a «square deal» in which each will feel that he has been treated fairly by the other. Since the conditions of previous exchanges between the same farmer and craftsman will define what is felt to be fair in the present one, the terms of exchange (functionally prices but expressed in terms of so much grain for a particular product or service) will tend to remain more or less the same over time. Such exchanges are, moreover, susceptible to personal considerations (a more generous «price» for a poorer member of the commu-

¹³ Cf. HUMPHREYS (1978) 148, who seems, however, to draw the incorrect inference that all economic exchange in Athens took place in the urban market.

¹⁴ The only instance of which I am aware of someone marketing a small amount of agricultural produce is at Aristoph. *Ekk.* 817–20, where Khremēs describes how he had just sold grapes for cash and was about to buy a sack of *alpbīta* with the money he had received. Khremēs, however, is a rather strange kind of farmer since he is also a city dweller, probably living in one of the houses represented on the stage's backdrop (cf. especially the imperatives ἐξίϑι [733, 739], ἐξένεγκε [744]). We should probably understand him as growing his grapes either on land in the immediate outskirts of the city, or perhaps even on a trellis or two in his urban garden, but certainly not as a typical subsistence farmer.

¹⁵ To judge from similar situations in other societies (e.g. colonial New England) such craftsmen will more often than not be farmers themselves who devoted some of their time to their crafts on the side. Cf. JAMESON (1977–78) 124.

¹⁶ Competition requires relatively large numbers of both sellers and buyers, to provide multiple sellers among which a buyer might choose (bringing prices down by competition) and alternative buyers to which a seller might sell (keeping prices high through competition among buyers for a limited supply of a particular product). The fewer the buyers or sellers in a particular market, the more likely concerns other than strictly economic ones will come into play in pricing decisions. Moreover, in such small-scale markets supply and demand are also more or less irrelevant to pricing decisions when e.g. there are only so many sandals a farmer can use and only some much grain a shoemaker can use.

nity, for example), so that the understanding of a «fair» exchange may vary from one transaction to another.

In small interdependent communities like the rural Attic demes neighbor will turn to neighbor for help in times of hardship, particularly to a neighbor who is better off and more prepared to weather the storm.¹⁷ It was evidently part of the Athenian ethos that those with the resources helped those without. We see this, for example, in public behavior motivated by *philotimia*, generous expenditures on behalf of city or deme – made, however, not out of charity or civic-mindedness, but rather to acquire the public recognition and stature which such expenditures always bring.¹⁸ Such assistance on a more personal level, recognized by its recipient but also by the other members of the small local community, similarly enhanced the status of the well-to-do in that community. From an agricultural perspective, part of such assistance could have been to lend grain in bad times, especially seed grain, to those in need.¹⁹ Another part could well have been to purchase in good times the modest surpluses of local small-scale farmers to combine with their own produce to sell to the *sitopōlai* in the urban market, an action which demonstrated the «big man's» superior economic stature, that he participated in the large-scale urban market where lesser folk could not, while at the same time extending a boon to these lesser folk which earns their recognition and perhaps respect.²⁰

¹⁷ MILLETT (1991) 24–42 and 109–23 emphasizes this sense of obligation to other members of the community and the essentially personal character of (typically non-interest bearing) loans in his study of lending and borrowing in Athens.

¹⁸ On *philotimia* see especially VEYNE (1976); see also WHITEHEAD (1983). MILLETT (1989) is undoubtedly right in saying that Athens' democratic ideology was antagonistic to patron-client relationships in the Roman mode, and that state pay served in effect as a social safety net, as it were, keeping most citizen from falling into such relationships. For the wealthy *philotimos*, however, the prize was recognition by the community and perhaps even a certain deference, but not the acquisition of clients in the manner of a Roman patron. MILLETT is probably also right in assuming (p. 42) that Athenians would prefer to seek assistance from their social equals, e.g. through *eranos* loans, but such help from one's peers was not always available, particularly to the poor, in which case they would turn to their better off neighbors, and fourth-century law court speeches are replete with accounts by wealthy folk of how they helped their poorer fellow citizens.

¹⁹ Significantly, as far as I know, in times of food shortage, all of the steps which the Athenians took to relieve the shortage addressed only the needs of those residing in the urban agglomeration of the Peiraieus and the *astu*, and not those in the countryside (save to the extent that the latter could get to the Peiraieus or the *astu* to avail themselves of that assistance). I hope to treat this subject more extensively elsewhere in the future.

²⁰ On this last point cf. GARNSEY and MORRIS (1988) 101 in reference to peasants and their surpluses in the archaic period. As part of this system, tenant farmers could pay their rental in kind to their landlords (cf. Xen. Symp. 8.12), who would dispose of it along with their own surplus. Similarly at IG 2² 2167.253–54 the renter of an estate belonging to the Eleusinian cult establishment paid his rental in barley; the establish-

Needless to say, what has just been described here is an «embedded» economy, where primarily nonmonetary exchanges are structured by face-to-face personal relationships, past experience, concepts of fairness and concerns for status, and not by the competitive market with its autonomous forces of supply and demand. It is an economy where, significantly, there is no market in the geographical sense precisely because there is no competitive market in the economic sense, with the large numbers of buyers and sellers a competitive market requires. At the time of the Peloponnesian War most Athenians living in the countryside took refuge for a time in the urban agglomeration, where they experienced a monetarized economy, though, as we shall see, one which was not totally autonomous. There is, however, no evidence to suggest that once these refugees returned to their farms after the war their experience with an urban monetarized economy had any effect on their social relations with their neighbors in the countryside or on the economic practices embedded in those relations.²¹

3. Imported Cereal Grain at its Source

As we have already seen, large-scale farmers in the Attic countryside were an important source of cereal grains for the urban agglomeration, although in our current state of knowledge it is impossible to say how much of urban Athens' need for grain was regularly met by locally grown produce and how much of it was imported. Whatever its actual size, however, the place of domestic grain in Athens' urban food supply was significant enough, even late in the fourth century, that its failure could still play havoc with the urban food supply. The

ment's officials had their own procedure for disposing of surplus first fruits on the market (cf. below, note 70 on IG 2² 1672), and the farmer's rental would be included with the surplus first fruits for sale.

²¹ On the evidence for this return to the countryside see ROSIVACH (1993), and cf. also OBER's argument that after their defeat in the Peloponnesian war the Athenians rejected Perikles' policy of abandoning the countryside in favor of a policy of national defense meant to protect the Attic *kebōra* by stopping potential invaders at the territorial frontiers (OBER [1985]). There is really no evidence that in the fourth-century Athens was dominated by an urban thetic class dependent on state pay (including service in the fleet), a notion which first arose from a mistaken identification of Athenian *thētes* with urban proletariats in nineteenth-century industrializing Europe. *Thētes* lived in the countryside before the Peloponnesian war, farming smaller plots of their own land, sharecropping and/or renting land, and would have resumed doing so after the war (cf. JAMESON [1977–78] 123). On the continuing political and military importance of hoplites (presumably farmers) in fourth-century Athens see PRITCHETT (1974) 104–9. On Athenian farmers rowing in the fleet during the Peloponnesian war see ROSIVACH (1985); there is no reason to believe that thetic farmers were not among those drafted to man the fourth-century Athenian fleet as well.

importance of locally grown grain in the late fourth century is shown symbolically by the inclusion of defense of the countryside as a linked item with grain supply (περὶ σίτου καὶ περὶ φυλακῆς τῆς χώρας) on the agenda of the assembly as its principal meeting each prytany (AP 43.4) and by the inscribed version of the Epehebic Oath to protect the «fatherland» (ΤΟΔ, GHI 2.204), which ends by calling as witness the principle food plants of the Athenian countryside in descending order of importance: wheat, barley, grapevines, olive trees and fig trees (πυροί, κριθαί, ἄμπελοι, ἐλάαι, συκαῖ, lines 19–20).

That having been said, however, it must also be said that, without a doubt, by the fourth century at the latest the urban agglomeration of the Peiraieus and the *astu* could not have been fed without regular large-scale imports of grain from abroad.²² This dependence on overseas grain is the reason behind much of Athens' regulation of the grain trade, including laws, which we know from the fourth century, forbidding Athenian citizens and metics to transport grain to anywhere other than Athens, or even to lend money for such a pur-

²² For a brief history of Athens' importing of grain see GARNSEY (1993) 107–64. GARNSEY properly distinguishes between grain imported in response to local crop failures and imported grain as a part of the regular food supply, and attributes the beginning of the latter to population pressures in the fifth century, a situation exacerbated by the disruption of Athenian domestic agriculture during the Peloponnesian War, particularly after the Spartans established themselves at Dekeleia. GARNSEY's fifth-century date for the beginning of Athens' dependence on imported grain is considerably later than the traditional view, that it can be traced back to Solon's day; his principal argument is that in the past scholars have seriously underestimated the bearing capacity of Attika (pp. 89–106, an expansion of GARNSEY [1985]). My own feeling is that while GARNSEY is certainly right in the essentials, there are simply too many variables (and too many imponderables) to allow us to determine how much food Attika either could or did grown in any particular year; the figures for the total population of Attika in either the seventh or the fifth century (cf. arguments from population pressure for the importing of grain) are also dubious: while we have reasonably reliable data for the number of hoplites Athens had at several points in her history, we have no conclusive evidence for the number of non-hoplite poor, typical family structure, life-expectancy, number of slaves and metics, etc. etc., all of which we would need to know in order to determine total population (in particular, it is wrong to assume that every hoplite was the head of a separate family unit; many were certainly still childless young men living in their father's households). Regarding the relatively late date when imported grain became a regular part of the Athenian food supply, BRAUND (1994) 123–24 observes that the comparatively free hand granted the Persians in the Black Sea by the Peace of Kallias in 450/49 «seems enough to undermine claims that Athens depended on [grain] exports from the Black Sea in the first half of the fifth century». The earliest mention in our sources of Athenian dependence on imported grain is only at Thuc. 6.20.4 where, during the debate on the Sicilian expedition of 415, the historian has Nikias say that in contrast to the Athenians the Sicilians use domestic rather than imported grain (σίτῳ οἰκείῳ καὶ οὐκ ἐπακτῷ χρῶνται), though the language here suggests that by this date importing grain was already a well established practice at Athens.

pose – measures all designed to ensure that a sufficient supply of grain reached Athens from overseas.²³

Part of Athens' imported grain came from her overseas dependencies Skyros, Imbros and Lemnos,²⁴ and part came from further afield, notably from southern Russia and Egypt.²⁵ We know virtually nothing about Athens' ordinary trade relations with any of these long-distance suppliers with the exception of the Bosporan kingdom in southern Russia ruled by Spartokos and his descendants.²⁶ Here, however, we are told (Dem. 20.31) that at least half of

²³ For sources see FIGUEIRA (1986) 150. Such laws became particularly necessary in the fourth century, when a militarily weakened Athens was no longer able to control the Pontic grain trade as she once could in the days of the Delian League in the fifth (cf. e.g. below, note 55 on IG 1³ 61.34–41).

²⁴ IG 2² 1672.271–79 and Agora inv. no. I 7557, recently published by STROUD (1998). The latter document requires that certain taxes on grain be collected in kind in order to establish a communal store to be available when grain supplies would normally be at their lowest, just before the local harvest season (in the month of Anthesterion [February/March], lines 43–44). While the document is a *nomos*, and thus sets forth a procedure meant to be permanent, we hear nothing more of this communal store in our sources even when we would expect to hear of it, during the various grain shortages Athens experienced in the fourth century (on which see ISAGER and HANSEN [1975] 201), and it would appear that the *nomos* was eventually either repealed or simply ignored. It is still not completely certain what the taxes (a «twelfth» [lines 3, 6, 47] and a «fiftieth» [lines 8, 57]) were, but HARRIS (1999) makes some progress; I am still not convinced, however, that the «twelfth» is an 8 1/3% tax (a rather exorbitant rate, not really comparable to the 10% tax levied in the Hellespont in wartime [Xen. Hell. 1.1.22]) and not a 1/12 fractional payment of a larger sum, like the «two tenths» (lines 58–60) as explained by HARRIS.

²⁵ On Athens' various overseas sources for grain see ISAGER and HANSEN (1975) 20–27.

²⁶ We do know, however, of two abnormal situations in Egypt: (1) Demosthenes (56.7) refers to Kleomenēs, Alexander's governor there, «reselling» (παλιγκατηλεύων) grain and «fixing» (συνιστάς) its price with some merchants (*emporoi*). [Arist.] Oik. 1352^b 14–20 elaborates that Kleomenēs bought up all the grain from its producers and resold it to the *emporoi* at a higher price. (2) [Arist.] Oik. 1352^a 16–23 also tells a second story of how the same Kleomenēs increased export tax rates so as to raise the same amount of revenue on a smaller quantity of grain. The second book of the Aristotelian *Oikonomika* is hardly a reliable source for details that are not essential to the economic stratum being described, but it may be relevant that the second of these stories (1352^a 16–23) mentions Egyptian *nomarkhai* (district governors) who seem to be normally involved in the sale of grain to *emporoi*, which would be consistent with our general picture of Egyptian government practices (the second story [1352^b 14–20] has Kleomenēs «summoning» [καλέσας] «the producers» [τοὺς ἐργαζομένους], which would not be consistent with that picture – not to mention the difficulty of imaging how he did it; VAN GROENINGEN [1933] ad loc. suggests, as one possibility, that he might have acted through the *nomarkhai*; according to Arrian [Anab. 3.5.4] Alexander had told Kleomenēs to collect tribute from the *nomarkhai*, but otherwise to allow them to rule as before).

Athens' imported grain came from the Black Sea region,²⁷ a statement which, even if perhaps a rhetorical exaggeration, must mean that the Bosporan kingdom was Athens' principal foreign supplier by far, in which case the patterns of the grain trade with that kingdom are likely to have strongly influenced the patterns of trade with other foreign suppliers as well.

Scholars are now reasonably certain that the grain exported from the Greek *poleis* on the north shore of the Black Sea (principally Olbia, Khersonēsos and the Bosporan kingdom centered on Pantikapaion) was grown on the territory of those *poleis* rather than in the Scythian hinterland beyond.²⁸ We know virtually nothing about the organization of grain production in this region, though logic would suggest that grain for the export market was grown by major landowners who had the resources – particularly manpower in the form of tenants, hired labor or slaves²⁹ – to bring large areas of land under cultivation.³⁰ Archaeological evidence suggests that the Bosporan kingdom was a comparatively late comer to this large-scale cultivation of grain for export, with significant expansion coming only in the fourth century, in contrast to Khersonēsos, whose expansion dates to the late fifth century, and Olbia, which shows initial growth in the mid-sixth to early fifth century, followed by a decline which continued until late in the fifth century, when expansion again resumed.³¹

If we assume, as seems reasonable, that expanded production is a response to greater demand, then the picture derived from archaeology suggests that the demand for Pontic wheat grew significantly during the Peloponnesian war, when the Athenians in particular became increasingly dependent on overseas sources for their grain, and that Olbia and Khersonēsos were the first to expand production to meet that demand. The archaeological picture also suggests that overseas demand for Pontic grain continued after the war,³² and that the

²⁷ Ἐκ τοῦ Πόντου, which in this context is more likely to be a stylistic variant for ἔκ τοῦ Βοσπόρου than a sophistic sleight-of-hand intended to confuse Bosporan sales with those from the entire Pontic region. The speaker of Dem. 20 is rather careless about geography, elsewhere (20.33) using «Bosporos», the name of the kingdom, to refer to Pantikapaion, its capital, in a contrast with Theodosia, another port in Bosporan territory.

²⁸ See ŠČEGLOV (1990) on the rather flimsy evidence for the earlier orthodoxy that the Greek cities served as entrepôts for Scythian-grown grain, a view that was based on a tendentious reading of Herodotos' Scythian *logos*.

²⁹ Manpower reservers (voluntary and involuntary) were available in the form of the nearby nomadic Scyths (cf. the Bosporan king warring with Scyths, Dem. 34.5), or perhaps more likely in the populations of Thracian stock living under the domination of these Scyths (cf. HODDINOTT [1981] 97).

³⁰ For one Bosporan large-scale landowner see Dem. 35.31–32, where a shipper is said to have transported wine and salted fish from Pantikapaion to Theodosia for a «certain farmer» (τινὶ γεωργῷ) to feed the workers (*ergatai*) on his farm near the latter port.

³¹ ŠČEGLOV (1990) 158; WASOWICZ (1966); cf. NOONAN (1973) and BOUZEK (1989).

³² Due in part, to the fact that the Athenians (and perhaps other Greeks) had developed a taste for Pontic wheat; see further below at notes 84–86.

Bosporan kingdom was able to take advantage of, and perhaps even to cultivate the continuing demand. As we shall see in the following paragraphs, the Bosporan kingdom's policy of according preferential treatment to Athens in grain exports goes back to Satyros I, who was king during the Peloponnesian war. It is not unreasonable to see the beginnings of the kingdom's special relationship with Athens and the expansion of Bosporan agriculture as two elements of a single Bosporan grain policy.

To trace this Bosporan grain from producer to consumer, the farmers, presumably major landowners, sold their grain to merchants (*emporoi*) who transported it back to Athens for resale there. We know that in dealing with the *emporoi* the Spartokids gave priority in loading grain to ships destined for Athens (Dem. 20.31); this also meant that when supplies were limited or demand was high Athens' needs would still be met even if those of other states would not (cf. Isoc. 17.57). We also know that the Bosporan rulers exempted ships bound for Athens from the tax which they normally imposed on exports (Dem. 20.30–31; 34.36). With a rate of $1/30 = 3.33\%$ of value for this tax (Dem. 30.32), exemptions for ships bound for Athens must have cost the rulers a considerable amount of potential revenue. One may also suppose, however, that the rulers themselves were among the large-scale landowners, and would thus still profit at least from sales of their own produce, even without the tax.

All the same, this tax exemption does not make very much sense in strictly economic terms, and one may suspect that something else is involved. Possibly the rulers may have been under pressure from the other owners of large-scale farms to ensure a market for their grain, which tax exemptions could do by making the Bosporan kingdom a more attractive destination for *emporoi* sailing after grain. Perhaps, however, the explanation of the tax exemption has nothing to do with economics at all. And from a non-economic perspective the Spartokids' preferential treatment of grain ships bound for Athens can easily be understood as a manifestation of the «friendship» which the Bosporan rulers had for the Athenian people, a friendship which was remarkably long-lasting. Thus we know from Syll.³ 206 (IG 2² 212+), dated 347/6, that at that date friendly relations between Athens and the Spartokids were already entering into their third generation, having begun under Satyros I, who ruled in the last quarter of the fifth century and into the fourth, and continuing under his son Leukōn, and then under his grandsons Spartokos II and Pairisadēs; indeed, good relations between the Bosporan kingdom and Athens continued on well into the third century, as we know from IG 2² 653, dated 284.³³

³³ BURSTEIN (1978) 426–36 maintains that Athenian relations with the Bosporan rulers were not consistently good during this period, a claim which is difficult to either prove or disprove, given our limited sources and their ambiguous nature (e.g. Parisadēs' proclama-

The surprising longevity of this relationship between the Spartokids and Athens suggests that long-term arrangements (rather than situational circumstances of supply and demand) structured the Spartokid-Athenian commerce in grain along more personal and less strictly economic lines. There is, however, nothing to suggest that the Athenian government negotiated actual grain prices with these royal suppliers on behalf of the *emporoi*, or that prices were set by treaty or some other kind of agreement. Indeed, while, from a diplomatic point of view, Syll.³ 206 serves de facto as Athens' formal assent to Spartokos II and Paisiadēs' proposal to renew the arrangements that had prevailed with Athens under their father and grandfather, the Athenian decree takes the form not of a treaty but of an honorific proclamation with language typical of decrees praising public benefactors for their «excellence and good will towards the Athenian *dēmos*» (ἀρετῆς καὶ εὐνοίας ἔνεκα τῆς εἰς τὸν δῆμον τῶν Ἀθηναίων, 32–33). Significantly, this decree, like other honorific decrees, effectively treats its honorees as private persons, and there is no mention in the decree of their position as rulers of the Bosporan kingdom. Perhaps the relationship between the Athenian *dēmos* and its royal suppliers is best understood as an almost personal one, not very different from Homeric kings and heroes bonding with each other through the exchange of gifts of honor – Syll.³ 206 actually calls them δωρεαί – tax exemptions, priority in loading and perhaps other considerations for the Athenians from the Spartokids, and for the Spartokids from the Athenian *dēmos* statues (Din. 1.43), golden crowns (Syll.³ 206), honorary citizenship (Dem. 20.30) and exemption from taxation in Athens (ibid.) – all items of little practical use to the kings but of considerable symbolic value in terms of their own self-image, coming as they did from what was arguably still the most important *polis* in Greece.³⁴

tion of a tax exemption for ships bound to Athens [Dem. 34.36] could refer to a proclamation at the start of his reign that he would continue this policy of his father, and need not be a recent reinstatement of the exemption [the genitive absolute κήρυγμα γὰρ ποιησάμενου Παισιδάδου could as easily be causal as temporal]; the statues of Spartokids for which Dinarkhos says Demosthenes had been responsible [Din. 1.43, dated 323] could have been erected any time after 344/3 [when Spartokos II died], and need not mark a restoration of good relations and its attendant privileges [including the export-tax exemption] which had meanwhile slipped away – recall that Demosthenes had been looking after the Spartokids' interests at least as early at 355, the date of his speech 20 Against Leptinēs).

³⁴ «What is interesting about Greek political relationships is the interplay between public and private on a number of levels. When the *polis* behaved as a corporate body, it often assumed models for relationships which . . . could be considered more appropriate to personal activities than for impersonal state relations . . . All of these relationships implied and appealed to duties and obligations that were more natural to personal relationships» (MITCHELL [1997] 40). On the citizenship grants to the Spartokid dynasty see further OSBORNE (1983) 41–44. On the attractiveness of Athenian power and prestige to grain producers on the margin of the Greek world see FANTASIA (1987) 114. The Bosporan kingdom was far enough away from Athens that the Spartokids had no need to fear her «friendship».

While it may perhaps be difficult, given our own contemporary experience, to imagine a market based of something else other than supply and demand, we should at least consider the possibility that the grain market, both in the Bosporean kingdom and perhaps elsewhere, was structured along different, more traditional lines. In particular we might entertain the possibility that the grain in these markets was sold not at a price set by supply and demand but rather at a «fair» or «just» price similar to the «fair» exchange we saw above in connection with non-monetary transactions in the countryside, a price which all involved recognized as giving the seller a socially acceptable and not excessive return on the goods he sold. While there is little positive evidence for the existence of such a «fair» price at the producer-*emporoi* level, it is worth noting that there is also virtually no evidence for the autonomous operation of supply and demand at this level either. In particular, a conventional, and thus habitual «fair» price (rather than one determined situationally by supply and demand) would be more consistent with a trading relationship informed by the kind of personal ties and reciprocal honorific exchanges between the Bosporean rulers and the Athenian *dēmos* described in the previous paragraph. Besides, by its nature a conventional/habitual price could also be expected to remain the same from year to year, and in this regard it is interesting to note that while we know that the prices at which *emporoi* sold their grain to *sitopōlai* in Athens could rise and fall according to market conditions, with one exception we never hear of higher (or lower) than usual prices for grain sold to the *emporoi* by their local sources, either in the Bosporean kingdom or elsewhere.³⁵ Similarly, since *emporoi* had to pay their overseas suppliers on the spot with funds they had previously raised in Athens before their departure,³⁶ it would have helped them to know before they sailed what market price they could expect to be charged by their suppliers, and hence how much cash they needed to bring with them;³⁷ but this would have been very difficult to do, given the slowness of long-distance communications in the ancient world, unless the *emporoi* could expect to purchase this overseas grain at habitual conventional prices.³⁸

³⁵ For the one exception see above, note 26 on Kleomenēs cornering the supply of Egyptian grain.

³⁶ None of our sources, as far as I know, specifically says that trade between *emporoi* and their foreign suppliers was conducted exclusively in cash (i.e. silver coins) «up front» rather than on a credit basis, but this follows from the whole financial structure supporting the grain trade, with *emporoi* receiving cash from their backers before leaving Athens. Besides, individual Bosporean suppliers would have no way of compelling payment for grain sold on credit to *emporoi*.

³⁷ They certainly wanted to bring enough cash with them to buy a full shipload of grain, but given the high interest on shipping loans they would not have wanted to borrow more money than was absolutely necessary. Cf. MILLETT (1991) 97 on the handicaps which lack of information and an inability to change to meet changing demand placed on the autonomous functioning of the capital market at Athens.

³⁸ The question naturally arises, what did the Athenians export in return for their imported grain. As far as we can tell (see above, note 36), the *emporoi* paid their over-

4. *Imported Grain in Attika: The Urban Market*

Once grain reached Athens it normally passed through three tiers of markets (in the economic sense), a wholesale market in which *emporoi* sold their cargoes to middlemen (*sitopōlai*, «grain sellers»), an intermediate market in which *sitopōlai* in turn sold unprocessed grain to millers and bakers,³⁹ and a retail market in which millers sold *alphita*⁴⁰ and bakers sold (wheat) bread to consumers.⁴¹ The distinction between the intermediate and retail markets is seen clearly in the Aristotelian Athēnaiōn Politeia (51.3), which speaks of the *sitophulakes* («grain wardens»), on whom more below) supervising «first» (πρῶτον) the prices of «unworked grain» (σίτος ἀργός) and «then» (ἔπειθ') the prices millers charge for *alphita* and bakers for bread. End consumers who ground their own grain presumably bought it from the *sitopōlai*, but the description of the two-stage market in the AP suggests that more typically end consumers purchased cereal grain in the processed form of *alphita* or bread rather than buying unground grain to grind themselves. That end consumers bought grain in finished form rather than unmilled may also in part explain why the *polis* subsidized its citizenry during the latter part of the Peloponnesian war through the two-obol

seas suppliers in cash, i.e. silver, some of which the suppliers used in turn to purchase other goods (especially luxury products; cf. BOUZEK [1989] 257–58) which the *emporoi* brought with them on their voyage out from Greece. But the coined silver was also a commodity itself which could be used to enhance the suppliers' status in their local community through gifts, display, etc. It was, of course, the availability of silver, thanks to the mines at Laurion, which allowed Athens to import as much grain as she did without suffering a devastating national trade imbalance. On the extremely limited evidence for the export of Athenian products see ISAGER and HANSEN (1975) 34–42, and on the importance of silver as an export, *ibid.* 42–49. It is sometimes claimed that Athens was a major exporter of olive oil, a claim which is based on Plutarch's assertion (Sol. 24.21) that a law of Solon forbade the export of any farm produce other than olive oil. If there is any substance behind Plutarch's assertion (and with Plutarch on legendary figures one can never be sure), the law's application was probably limited to the particular socio-economic conditions Solon faced as *nomothētēs* and remained in effect only for that brief length of time (cf. GARNSEY and MORRIS [1988] 103). There is no evidence in our fifth- and fourth-century sources either that the production of olives and oil was encouraged (which, given the primary orientation of Athenian trade policy towards imports, is quite unlikely) or that the export of other natural produce was prohibited.

³⁹ *Sitopōlai* are contrasted to *emporoi* at Lys. 22.17 and 21 in a way that shows that only *sitopōlai* (and not millers and bakers) dealt with *emporoi*.

⁴⁰ On *alphita* see above, note 5.

⁴¹ Cf. the parallel structure in the public grain sales detailed in Agora inv. no. I 7557: the tax farmers who collect the tax on grain in kind correspond to the *emporoi* (cf. καθάπερ οἱ ἄλλοι ἔμ[π]ορ[ο]ι, lines 26–27), while the board of ten who receive the grain from the tax farmers and eventually resell it correspond to the *sitopōlai* (lines 36–42).

dole (the *diōbelia*, begun c. 410)⁴² rather than by directly distributing free grain which would still have to be ground.⁴³

As to the organization of the wholesale market, we may begin with the *emporion epimeletai* («overseers of the *emporion*»), a group of ten officials whose name implies that they were responsible for the general supervision of the *emporion*, the market in the Peiraieus for goods brought in from overseas.⁴⁴ Now the one specific duty of the *emporion epimeletai* singled out for mention by the AP (51.4) is that of compelling merchants (*emporoi*) who landed imported grain at the Peiraieus to forward two-thirds of their cargo to the *astu* (τὰ δύο μέρη τοὺς ἐμπόρους ἀναγκάζειν εἰς τὸ ἄστυ κομίζειν), implying, as PHILIPPE GAUTHIER has convincingly shown, that the last third of their cargo was not reexported, as has often been assumed, but rather remained to be sold in the Peiraieus.⁴⁵ In other words, on the wholesale level, grain imported into Attika was sold exclusively in either the *astu* or the Peiraieus; and this was not done by the merchants' choice but, as the verb ἀναγκάζειν shows, because the law required it. The reason why the law required it, I would suggest, was to insure that the marketplace in the *astu* was provided with an adequate supply of grain, which might otherwise have been kept in the Peiraieus to avoid the cost and inconvenience of further transport.⁴⁶ It should also be noted that if two-thirds

⁴² WILAMOWITZ (1893) 2.214 is certainly right that the *diōbelia* was a grant to citizens who had been reduced to poverty by the war, more specifically refugees from the countryside who could no longer farm their lands because of the Spartan occupation of Dekeleia. The *diōbelia* is first attested epigraphically in IG 1³ 375.10 dated 410/9; AP 28.3 attributes it to Kleophōn, who was politically active in the last decade of the war (PA 8638). On various views of the *diōbelia* see RHODES (1981) 355–56, and PODES (1992) with notes.

⁴³ IG 1³ 379.86–90 (IG 2² 1686+), an account of the Treasurers of Athena for 405/4, contains entries listing quantities of wheat expressed in *medimnoi* (lines 45–50; the exact quantities are uncertain due to the extremely fragmentary nature of the inscription). FERGUSON (1932) 82–84 sets these listings in the context of the food shortages Athens endured at the end of the Peloponnesian war, and understands them as the record of disbursements of (presumably confiscated) grain stored for safe keeping on the acropolis in the care of the Treasurers, then doled out over time. This may well be correct, but the inscription as it stands tells us nothing about which officials received the wheat from the Treasurers and what they did with it (sold/gave it to bakers? or distributed it directly to the people?). In the case of Agora inv. no. I 7557, if the board of ten were functioning as *sitopolai* (above, note 41), we would expect them to sell their grain to millers and bakers, not to the end consumers. On IG 1³ 379.86–90 (IG 2² 1686+) see also WOODWARD (1956) 116–17.

⁴⁴ On the *emporion* see GARLAND (1987) 83–95.

⁴⁵ GAUTHIER (1981) 7–19. It matters little for our purposes here whether this was one-third and two-thirds of a vessel's total cargo or one-third and two-thirds of the grain off-loaded from the vessel in the Peiraieus.

⁴⁶ The expenses involved in transshipping the grain from the Peiraieus to the *astu* were probably substantial to judge from Agora inv. no. I 7557, which wants it clearly

of imported grain went to the *astu* and one-third remained in the Peiraieus, none of it went directly anywhere else.

In addition to the *emporion epimeletai*, another board of ten⁴⁷ officials, the *sitophulakes* («grain wardens»), was also concerned in some way with the wholesale grain trade, although exactly how is unclear. According to Demosthenes (20.32, dated 354) the *sitophulakes* maintained records (cf. τῆς παρὰ τοῖς σιτοφύλαξιν ἀπογραφῆς) which could be used to show how much grain Athens imported and from where. It is sometimes assumed that these records were kept by the *sitophulakes* in the process of enforcing a regulation on the maximum amount of grain which *sitopōlai* could purchase from the *emporoi* who brought the grain to Athens, but this is unlikely. Not that the *sitophulakes* were not responsible for enforcing such a limit on purchases by *sitopōlai*, which they were, at least in 386, as is reasonably clear from Lysias' speech Against the Sitopōlai written in that year.⁴⁸ It is difficult, however, to imagine what the purpose of such a regulation might have been if not to keep individual *sitopōlai* from hoarding grain, i.e. that the limit was not on the amount of a single purchase but on the total amount a *sitopōlēs* might have on hand at any given time.⁴⁹ But if the

understood (repeating it twice) that when a tax-farmer transports the grain he had collected from the Peiraieus to the *astu*, he is to do so at his own expense (τέλεσιν τοῖς αὐτῷ, lines 13–14, 19).

⁴⁷ According to AP 51.3 the *sitophulakes* had previously numbered ten, five each for the *astu* and the Peiraieus, but their number had been subsequently increased to twenty for the *astu* and fifteen for the Peiraieus by the time the AP was written. MERRITT (1944) 245 has speculated that the increase in their number was only temporary, in response to the grain crisis of the early 320's, and that the number reverted to the normal lower figure once the crisis had passed.

⁴⁸ The *sitopōlai* are accused in the speech of having violated the regulation on the maximum size of wholesale purchases (22.5), and later (22.16) the *sitophulakes* are said to have been held responsible on earlier occasions for the transgressions of the *sitopōlai*, from which one may conclude that the *sitophulakes* were responsible for enforcing the limit on wholesale purchases. The *sitophulakes* are also most likely the «magistrates» (*arkhontes*) who the *sitopōlai* claim directed their purchases in excess of the legal limit (22.6); even though 22.8 describes the interrogation of only three «magistrates», it is difficult to imagine who else these «magistrates» might be – perhaps there were simply fewer *sitophulakes* when the speech Against the Sitopōlai was written in 386 (for the date see GERNET and BIZOS [1926] 83–84, with p. 84, note 1). The limit given by Lysias is fifty *phormoi*, which are usually assumed to be *medimnoi*, although FIGUEIRA (1986) 155–56, is probably correct that they are not an actual measure but a basket approximate equivalent to a *medimnos*, roughly the amount of wheat one man could carry. The enforcement of this limit is not mentioned among the duties of the *sitophulakes* (or the *emporion epimeletai*) in the AP written in the 320's, but this does not prove that the limit was no longer in effect at that time since the AP's listings of magistrates' duties are often not exhaustive.

⁴⁹ Thus SEAGER (1966) 173–74. FIGUEIRA (1986) argues that the fifty-*phormoi* limit was intended to prevent collusive buying by *sitopōlai* to lower the prices they paid to the

purpose of the regulation was to prevent hoarding, simple practicality suggests that this could have been done far more easily through spot checks of *sitopōlai*'s stores than through a nightmarish tangle of accounts recording sales transactions between *emporoi* and *sitopōlai*. If the records Demosthenes speaks of were not accumulated in the process of supervising wholesale sales, perhaps the easiest way to explain their origin is to assume that at the time Lysias wrote *Against the Sitopōlai* the *sitophulakes* were responsible for the allocation of grain between *astu* and Peiraieus (as described in the preceding paragraph), a responsibility which had been transferred to the *emporion epimelētai* by the time the AP was written, and that the records Demosthenes mentions were assembled in connection with this allocation.

We should probably also see a similar effort to prevent hoarding by middlemen as the reason behind the regulation promulgated by the Four Hundred in 411 requiring that all grain on hand at that time and any henceforth imported be warehoused in a stoa in the Peiraieus, and that grain to be sold be taken only from that store.⁵⁰

Three further points are worth noting here: first, as far as we can tell, the *polis*' limited intervention in the wholesale grain trade did not include any regulation of either the prices charged by *emporoi* or their net profits;⁵¹ indeed, at Lys. 22.8 we see the *sitopōlai* irrationally bidding up the price of grain to the benefit of the *emporoi*. Second, a maximum inventory of fifty *phormoi* (= *medim-*

emporoi, but such a practice of collusive buying would be pointless if the *sitopōlai*'s markup was limited to one obol per *medimnos/phormos* (see below at note 55), no matter what they paid for the grain. FIGUEIRA'S answer to this is that the one-obol limit was unique to this particular year as part of a two-pronged policy (together with governmentally encouraged collusive buying) informally authored by Anytos as one of the *sitophulakes* to keep down prices for the end consumer, but see below, note 57 on the probable legislative source of the one-obol limit. That it was winter, with the sailing season already over, when the *sitopōlai* made the purchases in question is also significant since it shows (a) that the *emporoi* did not sell off all their grain as soon as they landed but warehoused some for later sale (they would winter over in Athens waiting for the next year's sailing season anyhow; on the relatively short length of the Aegean sailing season see ROSIVACH [1985] 41–44); and (b) that the *sitopōlai* probably did buy their grain from the *emporoi* in relatively small lots throughout the year. Limiting the amount of grain the *sitopōlai* could have on hand also worked to insure that retail prices varied closely with wholesale ones, thus preventing the profiteering that would have occurred if the *sitopōlai* had been free to buy up grain while it was cheap and then sell it when prices were higher.

⁵⁰ Thuc. 8.90.5. It is unlikely that this measure was aimed at controlling food supplies in the partisan interests of the government, as GOMME, ANDREWES and DOVER (1981) 307 seem to imply («owners could now take out for sale . . . only by leave»).

⁵¹ Or, for that matter, any regulation of the complex financial system which supplied the capital investment needed to support the long-distance trade in grain (COHEN [1992] 43–44).

noi?) is not a very large stock, at least when compared with the 3,000–4,000 *medimnoi* capacity of ordinary grain-freighters.⁵²

These small inventories suggest that the *sitopōlai* were themselves rather small-scale businessmen, without the capital resources to amass large amounts of grain even if the law allowed them to do so; conversely, however, limiting the size of inventories tends, in effect, to limit total profits, and thus to discourage those with substantial resources from entering into the grain trade as backers of *sitopōlai* as they had done as backers of *emporoi*. Third, the Athenians charged a tax of two percent of the value of imported grain, which, like other import taxes, was farmed out instead of being collected by magistrates of the *polis* (Dem. 59.27, referring to 369). Now Dem. 35.29–30, describing a ship which has brought a cargo from the Black Sea, envisages two possibilities, that the cargo, presumably grain,⁵³ could be unloaded (and then taxed) or it could be taxed while still aboard ship. If the import tax could be assessed on the cargo before it was unloaded (the second alternative), then it would appear that the tax was assessed on the presumptive value of the cargo rather than on its actual value as determined by its subsequent sale.⁵⁴ But if this was in fact the case, was the cargo's value assessed on the basis of prevailing market conditions or on a «conventional/traditional» price? I suspect the latter: given their conflicting interests, it seems quite unlikely that tax-collectors and *emporoi* would agree on what «prevailing market conditions» were without extensive litigation, no trace of which appears in our sources.

As to the intermediate grain market, one of the primary responsibilities of the *sitophulakes*, to judge from the description of their functions at the AP 51.3, was to regulate the prices which *sitopōlai* could charge, and thus the profit they

⁵² CASSON (1981) 183–84. A single ship could, of course, carry the cargo of more than one *emporos*, but it is hard to say how often this happened; in the examples cited by CASSON the entire cargo belonged to a single *emporos*.

⁵³ The speech does not say specifically what the cargo was, referring to it only as «things» (χρήματα, 35.11, 24, etc.), but the same word χρήματα is used elsewhere for a ship's cargo where the cargo definitely is grain (e.g. Dem. 56.7). Further, the mention (35.50–51) of penalties for transporting grain (σπηγήση) elsewhere than to Athens makes sense in this context only if the ship's cargo is assumed to be grain. The speech also belittles the defendant's claim that the cargo was not grain but wine from Cos and salted fish transshipped via Pantikapaion to Athens (35.35). Given the predominance of grain in Athens' foreign trade, we should probably assume that any reference to overseas trading involved grain unless we are specifically told otherwise.

⁵⁴ The alternative, that it was assessed on the basis of sales made while the grain was still aboard the ship and not yet unloaded, seems far less likely: given the limit on how much grain individual *sitopōlai* could purchase, the cargo of a single ship would of necessity be sold to multiple *sitopōlai* (and might also be sold in smaller amounts over time, rather than all at one time; cf. above, note 49). On the size of the maximum limit imposed on grain purchases by *sitopōlai* see above, at note 48.

could take per unit, when selling their grain to millers and bakers.⁵⁵ At least at the time of Lysias' speech Against the Sitopōlai, the maximum allowable mark-up was one obol, presumably per *medimnos*,⁵⁶ a regulation obviously intended to benefit the end consumer.⁵⁷ In this connection we may also note that the provisions against hoarding by *sitopōlai* which we saw earlier ultimately guaranteed the supply of grain for the retail market, and thus also worked to the benefit of the end consumer, though here in terms of availability rather than

⁵⁵ The *sitophulakes* are to see to it that unworked grain (the grain sold by *sitopōlai*) «will be priced justly» (ὄντιος ἔσται δικαίως, AP 51.3). On *sitopōlai* as suppliers to millers and bakers see above at the beginning of section 4, and cf. Lys. 22.8. Pace GAUTHIER (1981) 17–19, there is no evidence that the *sitophulakes* were custodians of communal grain stores. For the element *-phulakes* («guards, wardens») in the title of supervisory officials cf. the *Hellēspontophulakes* mentioned in a decree of 426/5 in IG 1³ 61.34–41, allowing the citizens of Methone to import annually grain up to a certain limit (the full number of *medimnoi* has been lost from the stone) from Byzantion (presumably this is grain which would otherwise be directed to Athens). While the Athenian *sitophulakes* were clearly involved with trade in imported wheat there is no indication in the AP or any elsewhere that their supervision was limited to imported grain (and products made from imported grain), and we may assume that it also included grain (and products made from grain) produced in Attika and sold in the markets of the *astu* and the Peiraieus.

⁵⁶ Lys. 22.8. Most scholars assume that the one-obol mark-up is per *medimnos*, which, at a conventional price of five *drakhmai* per *medimnos*, would mean a mark-up of 3.33%; SHUCKBURGH (1882) ad loc. says that the price of five *drakhmai* is per *phormos*, which may well come down to the same thing (cf. above, note 48; on the five-*drakhmai* conventional price for wheat see below at notes 68–70). The alternative view, that the mark-up was one obol per *drakhma* would have produced an extraordinary profit of 16.67%, which is wholly inconsistent with the small-scale and relatively risk-free transactions of the *sitopōlai*. ADAMS (1905) ad loc. argues unconvincingly that the one obol (per *medimnos*) was not a matter of legislation but an ad hoc arrangement made by «the magistrates» (*arkhontes*), presumably *sitophulakes* (see above, note 48), to overlook violations of the regulations on wholesale grain sales in return for a lower consumer price; it would, however, be a hardy *sitophulax* who would sanction a violation of the grain laws when the penalty for such malfeasance could be death (cf. Lys. 20.16). As FIGUEIRA (1986) 163 rightly notes, the one-obol mark-up must have been on the wholesale price prevailing at the time of sale, not that actually paid by the *sitopōlai* when they purchased the grain, which would entail horrendous problems of record keeping.

⁵⁷ Cf. Lys. 22.8. FIGUEIRA (1986) 151 says the *sitophulakes* set the mark-up themselves, which is both a priori unlikely (mark-ups affecting grain prices were too important to be left to a board of potentially corruptible officials and must rather have been legislated by the *ekklesia*) and not what Lysias says: the infinitive δεῖν in the clause δεῖν γὰρ αὐτοῖς ὀβελεῖ μόνον πωλεῖν τιμώτερον is grammatically parallel with συμφέρον as objects of the participle ἡγούμενος; Anytos felt it was to the advantage of the end consumers that the *sitopōlai* buy grain as cheaply as possible since (γὰρ) they were only allowed a one-obol mark-up (and hence all the saving from a lower price paid to the *emporoi* by the *sitopōlai* would be passed on to the end consumers). Besides, Anytos was only one member of a board of *sitophulakes* and could hardly set the rate of mark-up by himself, but the other members of the board testified that they knew nothing of his actions (cf. 22.8).

price. It is thus clear that through the *sitophulakes'* regulation of prices and supply the Athenian state intervened actively in the domestic market for grain and grain products, but it is less clear whether this intervention was an instance of «embedded» or «rational» economics. I will return to this question below.

Finally, on the retail level, according to AP 51.3 the *sitophulakes* enforced a regulation that millers sell *alphita* at a price consistent with what they had paid for the barley (πρὸς τὰς τιμὰς τῶν κριθῶν ἄλφιτα πωλήσουσιν), that bakers sell bread at a price consistent with what they paid for wheat (πρὸς τὰς τιμὰς τῶν πυρῶν),⁵⁸ and that bread loaves weigh the weight established by the *sitophulakes*.⁵⁹ We are not told how much of a mark-up millers and bakers were allowed to take over what they had paid the *sitopōlai* but clearly it was a limited and – as the language of the AP implies – a commonly recognized amount, in this sense similar to the mark-up *sitopōlai* were able to take when they resold the unmilled grain which they purchased from the *emporoi*.

The *sitophulakes* were divided into two groups, one for the *astu* and one for the Peiraieus, and to judge from an inscription dated to 375/4, they exercised their functions in two specific locations used as grain markets, both called simply ἐν τῷ σίτῳ, the one in the *astu* and the other in the Peiraieus.⁶⁰ In other words, whatever transactions on the intermediate and retail levels involving grain and grain products which may have taken place outside of the urban agglomeration of the *astu* and the Peiraieus (that is, in the countryside) did not fall under the supervision of the *sitophulakes*. It is understandable that regulation of wholesale trade in grain would be focused on the Peiraieus, where imported goods were off-loaded, and that efforts were also made to ensure that sufficient amounts of imported grain would reach the market in the *astu*, but the limitation of public supervision and intervention to the intermediate and retail grain markets of the *astu* and the Peiraieus requires a further comment. It is not so much that little or no economic activity occurred outside the Peiraieus and the *astu*, but rather, as we have seen, that such activity (whether in grain or in other goods or services) was, for the most part, likely to take the form of

⁵⁸ Τὰς τιμὰς here refers to the prices paid for unworked grain mentioned in the previous clause, and not to the prevailing prices for grain.

⁵⁹ AMPOLO (1989) argues that there was a conventional price of one obol for a loaf of bread, and that it was not the price of the loaf but its weight as set by the *sitophulakes* that varied with the ups and downs of wholesale wheat prices. The obvious reading of the AP's text here, however, is that bakers were constrained both in terms of price and (καί) in terms of weight; besides, the notion of a loaf of bread varying in weight from day to day seems quite impractical, if not a bit fantastic. All the same, I cannot supply an alternative explanation why the law requires the *sitophulakes* to set the weight of loaves of bread (implying that the weight of the loaves could vary according to the *sitophulakes'* direction), as the AP says it does.

⁶⁰ SEG 26.72.18–23, edited by STROUD (1984). On ἐν τῷ σίτῳ as the grain market see STROUD (1974) 180.

barter, gifts, and other «customary» modes of exchange instead of cash transactions. Without a visibly financial dimension these «customary» exchanges did not look like the sort of retail commerce typical of the marketplaces of the Peiraieus and the *astu*, and this may go a long way towards explaining why the *polis* remained uninvolved with them.⁶¹

Three parenthetical remarks would be in place here. First, the Athenian state was also involved in the grain market in the person of the *metronomoi* whose role was to insure that retailers used honest weights and measures in the market place (AP 51.2). Brief reflection on the various kinds of products likely to come to sale in Athenian markets would suggest that the principal items sold by measure or weight were grain and products made from grain. Like the *sitophulakes*, the *metronomoi* were divided into two groups, five for the *astu* and five for the Peiraieus, and none for anywhere else (AP 51.2). Second, the Athenians had a board of *agoranomoi* («market managers») to supervise the sale of all other goods (AP 51.1) and a separate board of *sitophulakes* who supervised the intermediate and retail grain trade (cf. Lys. 22.16), an index of how important a public concern these grain markets were to them.⁶² Third, according to Lysias (22.16) *sitophulakes* could be and had been executed for failing to carry out their duties properly, yet another sign of the importance which both the assurance of an adequate supply of grain and the control of its price had for the Athenians.

To summarize, the foregoing review of the Athenian government's role in the markets for grain shows that:

⁶¹ It is probably for the same reason that the *agoranomoi*, who oversaw the quality of all goods for sale (that they be «clean and unadulterated» [καθαρά και ἀκίβδηλα]), were similarly divided into two groups assigned respectively to the *astu* and the Peiraieus (AP 51.1), thus again ignoring economic exchanges in the countryside.

⁶² This at least is the clear meaning of Lys. 22.16, but one may wonder if the speaker is not confusing things for his polemical purpose, and that the real distinction is that the *agoranomoi* were concerned with the quality of goods for sale (including grain) while the *sitophulakes* were concerned primarily with the price (but not the quality) of the grain for sale: note that the *agoranomoi* are to take care that the goods coming to sale be «unadulterated and clean» (καθαρά και ἀκίβδηλα), where at least the former term seems particularly appropriate to grain (cf. Agora inv. no. I 7557, lines 24–25). It is unclear whether Xen. Symp. 2.20, which contains an analogy to the *agoranomoi* checking the weight of bread, is evidence that the *agoranomoi* supervised bread sales at the time Xenophon wrote this passage in the fourth century (or that they did so at the dramatic date of the dialogue sometime in the fifth), and perhaps this is simply an understandable slip on the part of Xenophon who, given his social status, probably did not buy very many loaves himself in the marketplace. The earliest evidence we have for the *sitophulakes* is SEG 26.72 dated 375/4 (on which see above, note 60), but there is no reason to believe that the origins of the office were not earlier. Xenophon's Symposium may date from as early as some time after 378 (DOVER [1965] 9–16) or as late as 365–62 (DELEBECQUE [1957] 346–47).

- i. Athens took steps to ensure an adequate supply of grain from overseas, including political arrangements with her major overseas suppliers;
- ii. within Attika, government intervention was limited to the intermediate and retail markets, while the wholesale market continued without government intervention beyond the requirement that *emporoi* transship two-thirds of their cargoes from the Peiraieus to the *astu*;
- iii. within Attika, government intervention in intermediate and retail markets was limited to the urban agglomeration of the Peiraieus and the *astu*, and did not extend into the countryside beyond.

As to the first of these points, we need recall here only that the market for grain on the Black Sea coast (and probably also in Egypt and elsewhere) was probably not organized rationally with prices determined by supply and demand, but was embedded in a pre-economic nexus of personal relationships, including quasi-personal relationships between local rulers and the Athenian people. In regard to the third point, we have seen how the apparently non-economic nature of exchanges in the countryside may explain the *polis*' inaction in their regard. The remainder of this essay will consider the implications of the second point above.

That Athens intervened to limit profits in the intermediate and retail grain market but left the wholesale market essentially unregulated shows that she understood the workings of supply and demand and that she was willing to let them work when she had no other choice.⁶³ Athens, after all, was not the only city that imported foreign grain to feed her inhabitants.⁶⁴ If she had fixed wholesale prices in a controlled market, she knew that *emporoi* who could would simply take their cargoes elsewhere if higher prices prevailed.⁶⁵ Athens had legal measures available to force any of her own citizens and resident non-citizen metics who were *emporoi* to bring all of their grain to Athens,⁶⁶ but she had no way to coerce foreign *emporoi* in a similar fashion, and so relied instead

⁶³ Hence the numerous essentially non-economic measures which Athens took to attract *emporoi* to the Peiraieus (on which see BURKE [1992] 203–12). It is an interesting reflection of Athens' habit of thinking non-economically that (as FINLEY [1985] 199–200 has pointed out) she seems never to have contemplated reducing her 2% import tax on grain, an obvious economic step to attract trade by reducing the cost to *emporoi* of doing business in Athens.

⁶⁴ In antiquity no large urban agglomeration could be fed solely by its domestic hinterland for reasons which we shall see below (note 81). Recall that the famous grain ships Xerxes saw passing through the Hellespont were bound for Aegina and the Peloponnese (Hdt. 7.147.2–3). For purposes of comparison see SOLMON's analysis of Corinth's need for imported grain (SOLMON [1984] 129–32).

⁶⁵ Cf. Dem. 56.8–10, which tells of agents alerting a shipper about unexpectedly lower grain prices in Athens so that the latter could sail on to Rhodes and sell his cargo there at a better price; more generally cf. e.g. Xen. Oik. 20.28.

⁶⁶ See above at note 23.

on the attraction of an unregulated market, which would also incidentally benefit her own citizen and metic *emporoi*, not to mention her domestic producers.⁶⁷

Even though Athens' wholesale market for grain was unregulated, there is some very limited evidence to suggest that this market still had its own conventional prices for unprocessed wheat and barley, which by the late fourth century served at least as norm to define which actual prices were high and which were low.⁶⁸ Thus, for example, IG 2² 360 (Syll.³ 304) praises an *emporos* for selling 3,000 *medimnoi* of grain at 5 dr the *medimnos*, presumably during the grain shortage of 330/29.⁶⁹ Similarly the speaker of Dem. 34.39, another *emporos*, tells how, probably during the same grain shortage of 330/29, he and his brother sold more than 10,000 *medimnoi* of wheat at 5 dr the *medimnos* when grain on the open market «had increased in price and gone to 16 dr» (ὁ σῖτος ἐπιτιμήθη καὶ ἐγένετο ἑκκαίδεκα δραχμῶν).⁷⁰ The figure of 5 dr cannot be sim-

⁶⁷ By allowing them to sell their grain at potentially higher market prices rather than at an artificially fixed profit as *sitopólai*, millers and bakers were forced to do. This policy, it should be stressed, was designed to benefit consumers, and any benefit enjoyed by domestic producers was simply an unintended side effect. Conversely, Athens was also unconcerned with the negative effect competition from large-scale imports could have on domestic production.

⁶⁸ On this point see also MILLETT (1990) 192–93, and cf. MILLETT (1991) 105–6. As to earlier prices, IG 2² 1356, a list of perquisites for priestesses from the beginning of the century, includes a *hemiektion* of wheat at 3 obols, the equivalent of 6 dr the *medimnos* (lines 17, 21) which would presumably be a retail rather than a wholesale price. (Aristot. Econ. 1347^a32–^b2 gives a price of 4 dr the *medimnos* as the current price for processed *alphita*, and thus for retail sale to the end user, in Lampsakos, probably in 410/9 [VAN GRONINGEN (1933) 83], which suggests – but nothing more – that the figure of 3 ob for a *hemiektion* of wheat in IG 2² 1356 is something like a normal price.) On the other hand, Aristoph. Ekk. 547 (dated 391) refers to a *bekteus* of wheat that might have been bought with the three obols paid for attending the assembly, which would yield an inexplicably low retail price of 3 dr the *medimnos*. For a survey of grain prices see SPAVENTA-DE NOVELLIS (1934) 31–34, 49 (wheat), 50 (barley), though her lists could benefit from updating.

⁶⁹ IG 2² 360.8–10, 29–30, 55–56, 67–68.

⁷⁰ The text as transmitted by the manuscripts says that the grain was sold τῆς καθεστηκίας τιμῆς, πέντε δραχμῶν τὸν μέδιμνον, where the expression would seem to mean something like at «the normal price, i.e. the one existing at time of the customary availability of the good» (FIGUEIRA [1984] 22–23), and a similar expression appears in SEG 24.154.18–19 (dated c. 264/3), which praises a general for buying grain in advance and selling it τῆς [κα]θεστηκείας τιμῆς to the soldiers of a garrison and the civilians who had taken refuge there. Clearly it would help this essay's case if τῆς καθεστηκίας τιμῆς meant «at a normal/conventional price» (as it is in fact taken by e.g. FIGUEIRA loc. cit. and MURRAY in the LCL). Unfortunately, however, in Dem. 56 similar expressions (τὰς καθεστηκίας τιμὰς [8]; τὰς τιμὰς τὰς ἐνθάδε καθεστηκίας, [10]), clearly have the sense of «currently prevailing prices» (agents inform *emporoi* of grain prices currently prevailing in Athens so they can take their shipments elsewhere where grain prices are higher). Hence KOEHLER's emendation of our passage (accepted by GERNET [1954]), (ἀντι) τῆς

ple coincidence but must represent something of a «normal» (i.e. pre-inflationary) price. The speaker's use of the verb ἐπετιμήθη at Dem. 34.39 is also instructive in this context, reflecting as it does a turn of thought that there is an appropriate or normal price (τιμή) for grain, presumably 5 dr, which «was added to» (ἐπι-) to reach 16 dr.⁷¹

If there was in fact a conventional or «normal» price for grain at the wholesale level such a price could have come into existence in one of two ways, either supply and demand had remained relatively balanced over a long period of time,⁷² resulting in a prolonged stretch of price stability during which purchasers (in this case the *sitopōlai*) had become accustomed to a particular price, or in a situation of inflation the «fair» price was simply what people remembered things had once cost in the past. It is worth noting in all of this that our sources mention losses from shipwreck and other hazards of travel but we never hear of any *emporos* suffering losses, as far as I know, because of low market prices back at Athens.⁷³ This is what we should expect if there was a

καθεστηρωίας τιμῆς πέντε δραχμῶν τὸν μέδιμον, «at five dr instead of at the prevailing price». (If τῆς καθεστηρωίας τιμῆς does mean «at the prevailing price» perhaps the general in SEG 24.154.18–19 is actually praised for nothing more than not selling his grain at an inflated price to the civilian refugees for whom he was the sole supplier. The restoration τῆς καθισταμένης τιμῆς in IG 2² 400.14 is based on Dem. 34.39, and hence of no independent value for understanding τῆς καθεστηρωίας τιμῆς in Demosthenes.) In any event, it is unlikely that τῆς καθεστηρωίας τιμῆς means «at the legislated price», which, to judge from e.g. IG 2² 1672.283 and 288, should require some form of the verb τάπτω (cf. e.g. [Arist.] Econ. 1349^a1, 3).

⁷¹ On the other hand, IG 2² 408, dated c. 330, praises an *emporos* for delivering 4,000 *medimnoi* of wheat at 9 dr (and an unspecified amount of barley at 5 dr), but in this case, with no mention of contrasting prices, there is no way of knowing how these prices related to current or conventional prices. Elsewhere, the speaker of Dem. 42.20, of uncertain date, says that his opponent had sold barley at 18 dr (presumably per *medimnos*) and wine at 12 dr (presumably per *metrētēs*), and near the end of the same speech (42.31) further says that the same person sold his *sitos* at three times (τριπλασίας) more than before (ἢ πρότερον); it is unclear, however, whether at this latter point the speaker had in mind the specific figures of 18 dr and 12 dr which he had mentioned earlier or for that matter, that he was really concerned about mathematical accuracy rather than rhetorical effects in his peroration. The prices given in IG 2² 1672 as legislated by the *dēmos* for the sale of the surplus from the first fruits offered at Eleusis in 329/8 (6 dr the *medimnos* for wheat except for 10 *medimnoi* at 5 dr [line 287–88, 296–97]; 3 dr the *medimnos* for most of the barley [lines 282–83] but 3 dr 5 obols for a late delivery from Imbros [line 297]) may be related in some way to conventional prices, but exactly how is unclear; in any event these are probably not the current market prices for these commodities if the *dēmos* had to legislate them.

⁷² That is, either supply and demand remained constant, or both increased (or decreased) in an identical fashion.

⁷³ Even in the case of Dem. 56.5–10, where Egyptian wheat originally bound for Athens was rerouted to sell for a better price in Rhodes (see further above, note 65), it appears that profits would merely have been comparatively disappointing if the wheat were sold at the prices prevailing in Athens, but not that there would have been a net loss.

conventional price for grain since conventional prices, by definition, should assure the seller (in this case the *emporos*) appropriate compensation for his own personal efforts above and beyond the price he himself had paid for the goods – even if that appropriate compensation is less than the profits which he might be able to make under conditions of tight supply in a supply-and-demand market.

All of the measures which Athens took in regard to the grain trade were, of course, intended to benefit the end consumers, her own people (rather than e.g. to develop trade or to increase state revenues by increased imports to be taxed). And yet even as Athens tried to ensure adequate supplies of grain and regulated profits on the intermediate and retail levels, the Athenian government did not intervene (through subsidies and/or regulation) to guarantee a fixed consumer price for *alphita* and bread, as is in fact generally done in contemporary societies when governments regulate food markets for the benefit of consumers. Rather than fixing prices at the consumer level,⁷⁴ the Athenians chose instead to regulate the mark-ups charged by middle men (*sitopōlai*, millers and bakers), who were all, conveniently, citizens or resident non-citizen metics,⁷⁵ and thus had no alternative but to accept the limits placed upon their profits – unlike the *emporoi* whose profits the *polis* could ill afford to limit lest they take their cargoes elsewhere.

⁷⁴ On the rare occasions when the Athenian government acquired grain which it resold at legislated prices, the sales were of unprocessed grain, made to millers and bakers (thus Agora inv. no. I 7557, lines 40–46 [cf. above, note 41]; IG 2² 1672, lines 282–83, 287–88, 296–97 [cf. above, note 71]), not to the general public. This is also probably true of the grain purchased with public funds by Demosthenes as *sitōnēs* («grain-buyer») to meet a food shortage after the Athenian defeat at Khaironeia in 338 (Dem. 18.248), the earliest appearance of this office in our sources (FANTASIA [1987] 112–16). The sale of small amounts bread and *alphita* in public buildings described in Dem. 34.36 probably has to do with rationing during a food shortage rather than with subsidized sales. The purpose of the sale of grain envisaged in Agora inv. no. I 7557 was solely to ensure adequate supplies would still be available late in the season (lines 40–46, cf. lines 5–6); there is nothing in the law to suggest that it was intended to drive down higher end-of-season prices by flooding the market with artificially low-priced grain.

⁷⁵ There are no grounds for assuming that *sitopōlai* were all metics and none citizens (Lys. 22.5 calls a metic *sitopōlēs* to the stand to play on a possible prejudice which the citizen jurors might have against metics, not because *sitopōlai* were typically metics). Similarly, the legal requirement that all citizen and metic *emporoi* bring their grain cargoes to Athens (Dem. 35.50–51) shows, by the specific inclusion of citizens among those covered by the law, that not all Athenian *emporoi* were metics, as is again often assumed. For *emporoi* in the Athenian assembly (and hence citizens) see Xen. Mem. 3.7.6. For citizen *emporoi* and shippers see further HANSEN (1984) 72–76 (based on ISAGER and HANSEN [1975] 77 with nn. 77–78), to which add THOMPSON (1982) 66 with n. 75. For citizens among the bankers financing the *emporoi*, see COHEN (1992) 70 n. 144, and 88–89.

Perhaps surprisingly in a system intended to benefit consumers at the retail level, increased costs on the wholesale level were passed along by middlemen to the consumers; the regulation of middlemen's profits merely prevented them from taking advantage of an already difficult situation. On the other hand, of course, a limit on middlemen's profits also ensured that the benefits of increased supplies and therefore presumably lower prices were similarly passed along to the end consumers as well.

Perhaps even more surprisingly, by intervening at the level of the middlemen (*sitopōlai*, millers and bakers) the Athenians created a system that equally benefitted all consumers, whether they were citizens or not: the price of a measure of *alphita* or a loaf of bread was the same for everyone, be they citizens, metics or slaves. This may be nothing more than another illustration of the law of unintended consequences, but if it is not, then it reflects a somewhat different conception of the Athenian community, which elsewhere regularly privileged citizens over metics and slaves. If the purpose of these arrangements regulating the grain market was to help all consumers and not just citizens, then we may say that the *polis'* intervention in the urban intermediate and retail markets for grain reflects a view of the economy which had become «disembedded» to this extent at least from traditional considerations of citizenship status. On the other hand, establishing a fixed profit per unit regardless of economic conditions reflects the quintessentially «embedded» notion of a «just price» (ὄντιος . . . δικαίως, AP 51.3) determined by a community's traditional understanding of what a middleman may fairly take as recompense for his role in the exchange process.⁷⁶ Admittedly the perspective of middlemen like *sitopōlai*, millers and bakers is not at all likely to be represented in our sources, but it may still be significant that, as far as we can tell, these middlemen seem never to have questioned the theoretical rightness of a law limiting their profit, even if they sometimes tried to circumvent its application in practice.

When and under what circumstances did the Athenian *polis* first begin this systematic regulation of the intermediate and wholesale grain trade? Control of prices at the intermediate and retail levels, free play of the market on the wholesale level to encourage imports, a focus on the urban agglomeration of the *astu* and the Peiraieus, and perhaps even an assumption that end consumers would purchase *alphita* and bread rather than unmilled grain all point to the Peloponnesian war, when large numbers of Athenian farmers took refuge in the urban agglomeration, temporarily from the annual invasions of the Arkhidamian war and more permanently after the continuous Spartan occupation of Dekeleia. A major purpose of both the invasions and the occupation was to

⁷⁶ Note in this regard that the maximum profit is per unit, not per middleman, who could still do quite well if he could move a large amount of grain between *emporoi* and end consumers.

prevent Athenian farmers from farming their fields (cf. Thuc. 27.4–5), a logical military move since normally subsistence farmers who grew their own food would have nothing with which to feed themselves and their families when they could not farm their lands. Athens was, however, able to frustrate Spartan aims by importing grain, principally from the Black Sea region, to feed the farmers who had taken refuge in the city.⁷⁷ Imported grain, however, would be of no use to those who could not afford to buy it. Together with the *diöbelia*,⁷⁸ regulation of price thus became necessary to assure everyone access to grain supplies at a price they could afford.⁷⁹

But if all this is correct, two questions impose themselves, Why did Athens continue to import grain after the Peloponnesian war, once the refugee farmers returned to their farms and resumed cultivation? and Why did Athens continue her regime of intervention in the grain market after the crisis of the war had passed?

As to the first of these questions, PETER GARNSEY argues that population pressures first led Athens to begin importing grain as part of her regular food supply in the period before the Peloponnesian war, and that these same population pressures caused her to continue imports in the fourth century.⁸⁰ This is probably true if we understand the population in question to be that of the urban agglomeration and not the population of Attika as a whole: given the means of transport available at the time, it was simply easier (and more economical) to ship grain in bulk from the Bosporan kingdom, Egypt, etc. than it was to bring it by wagon, pack animal or human porter from the remoter

⁷⁷ Cf. Xen. HG 1.1.35 on Agis complaining that the occupation of Dekeleia accomplishes nothing as long as grain ships can still reach Athens without interference. Recall that Athens was brought to her knees only with the defeat of her fleet in the Hellespont, which left her grain supply line from the Black Sea region at the mercy of the Spartans.

⁷⁸ On which see above, note 42.

⁷⁹ AMPOLO (1989) 210 suggests an interesting analogy between this sharing in grain supplies and the equal distribution of meat at sacrificial banquets. On a less abstract level, displaced farmers found themselves purchasing *alphita* and wheat from people they did not know; millers and bakers were selling their products to strangers. The temptation to take excessive profits is naturally greater with people one does not know, and the suspicion that one is being taken advantage of is greater when one deals with strangers. Regulation of the grain trade reinforced, as it were, a sense of community solidarity that might otherwise have been weakened through relocation and the disruption of personal networks of support.

⁸⁰ GARNSEY (1993) 131–32. GARNSEY (p. 123) properly distinguishes between Athens' regular need for imported grain and the *polis'* intervention in the grain markets, which he attributes to concerns about the food supply brought on by the war. He does not, however, discuss why the specific measures discussed here were taken rather than others.

corners of the Attic countryside.⁸¹ Two points, however, should be kept in mind here. First, the swollen war-time population of Athens' urban agglomeration shrank with the return of refugee farmers to their farms, and her need for imported grain would have similarly shrunk from the artificially high levels of the later war years. Second, some of the urban agglomeration's grain needs could and probably still were met by produce from the nearer Attic hinterland where farms were close enough to the urban agglomeration that a prohibitive effort was not required to bring grain there.

There is probably also another reason why Athens continued to import grain in the fourth century. Attika, as far as we can tell, produced far less wheat than barley in antiquity. Barley is, generally speaking, less nourishing per unit of volume than wheat,⁸² although it is more prolific, yielding a larger volume per unit of land sown. The ratio of yield to nutritional value naturally varies with soil and climatic conditions, but at least in Attika the yield of barley per unit of land sown was sufficiently greater than that of wheat to outweigh the greater nutritional value of the latter per unit of volume. In effect, under the conditions prevailing in Attika, a unit of land planted in barley will produce food with a higher net nutritional value than the same unit planted in wheat; conversely, under Attic conditions more land had to be planted in wheat than in barley to yield the same nutritional value.⁸³ Tillable land, however, was one thing we know Attika did not have in abundance.⁸⁴ What is more, wheat is a

⁸¹ The further a farm was from the urban agglomeration, the greater the economic reward needed to justify transporting surplus grain there. The carrying capacity of draft and pack animals was also comparatively small (ENGELS [1978] 14 estimates 200 lbs. for a mule; a wagon could carry more, a man less), which would require either multiple trips or multiple animals. There probably were, however, not that many pack animals on Attic farms: such animals have to eat daily, even on days when they were not carrying grain to market, and they could not be used for much else except carrying loads to market. Draft oxen who pulled plows could also pull wagons where the roads were good enough, but often they were not. Poorer farmers who did not own enough land to maintain and feed oxen for plowing had to do the heavy lifting themselves. By way of comparison, «when the West Australian Railways were constructed, a reasonable distance which a settler could be expected to carry his produce [sc. by horse-drawn transport], particularly wheat, was considered to be about 12 1/2 mi». (CLARK and HASWELL [1967] 191, who also cite an eighteenth-century French assumption «that food would not normally be transported more than 15 km from its place of origin» under transport conditions similar to those in ancient Attika [p. 179]; on the whole issue of transport in the context of subsistence farming see CLARK and HASWELL's chapter on the subject, pp. 179–99).

⁸² Conversely a larger volume of barley is required than its nutritional equivalent in wheat, making it more expensive to transport and thus less likely to be imported than wheat (JASNY [1941–42] 737).

⁸³ JASNY (1941–42) 752–54.

⁸⁴ This point is especially stressed by SALLARES (1991) 352, 358. On the percentage of Attic land that was cultivatable see *ibid.* 309–10.

riskier crop to plant than barley since it is more sensitive to interannual variations in heat, rain, and the timing of both during the growing season; in particular, wheat requires more moisture than barley does to grow properly, but ancient Attika was rain-poor and without artificial irrigation.⁸⁵ To be on the safe side, most farmers would have met their household's needs by planting barley; only those with enough extra land to gamble would have planted some of it in wheat as well.

But if Athenians grew more barley than wheat, as a matter of taste they generally preferred to eat wheat bread when they could instead of *maza* made from barley.⁸⁶ Not all wheat is the same however, and the wheat which grew in Attika in antiquity was of a variety akin to modern durum wheat, which makes poor bread and is used today mainly for macaroni. Because of climatic conditions bread wheat, with softer grains and more moisture, could not grow at all in Attika, but it was the grain of choice to import from the wheat-producing cities along the Black Sea coast of southern Russia.⁸⁷ Once they had become accustomed, during the Peloponnesian war, to the superior quality of bread made from imported Black Sea wheat, those Athenians who could afford it preferred this bread to bread made from domestic wheat and especially to barley *maza*. Because of overland transportation costs within Attika, however, imported Black Sea wheat could not compete with domestic wheat and barley outside the urban agglomeration of the Peiraieus and the *asty*, and even inside the agglomeration it still was, to some extent at least, a rich man's food.⁸⁸

Even if population pressures in the urban agglomeration and the food preferences of consumers can go a long way towards explaining why Athens continued to import grain from abroad they do not explain why she continued her interventionist regime after the crisis of the Peloponnesian war had passed. With refugees returning to the countryside and resuming farming, far fewer people had to be fed by imported grain. Why not stop artificially limiting profits in the intermediate and retail markets and let competitive supply and demand take their course? For regulations like the ones we have seen limiting profits are enacted only when people feel that prices should be kept at a «just» level and they believe that they would not be without governmental interven-

⁸⁵ On the greater vulnerability of wheat compared with barley see SALLARES (1991) 315; on moisture requirements see GARNSEY (1993) 10.

⁸⁶ On *maza* see above, note 5. An interesting illustration of how the Athenians considered wheat bread a special treat compared to barley products is found in a law attributed to Solon, that those fed at public expense in the Prytaneion were to be served *maza* on most days but bread on holidays (Athenaios 137e).

⁸⁷ On bread wheat vs. durum wheat see JASNY (1941–42) 762 and SALLARES (1991) 319; on Bosphoran bread wheat see SALLARES (1991) 331–32.

⁸⁸ For the last point, JASNY (1941–42) 755.

tion. One obvious reason why the Athenians continued to intervene as they did is that limiting the profits of middlemen must have been popular with most people, and thus politically difficult to eliminate even after the need for it had passed. Another reason may have been simple inertia: we do not know exactly when during the Peloponnesian war the system of profit controls was put into place, but if it was early enough, by the end of the war such controls would have become habitual, and most Athenians would have had no personal recollection of any other way of doing business in grain.⁸⁹ Besides, if ordinary Athenians did indeed still think of sales on the retail level in terms of «just» or traditional prices and looked on profit beyond legitimate compensation as theft (regardless of what was happening of the wholesale level of the *emporoi* and their financial backers), then there really was no reason for the system to be changed, especially when change would legitimize a hucksterism that was hostile to the communitarian values which structured the economic sphere as it was typically experienced by ordinary folk.⁹⁰

The importance for Greek social and economic historians of POLANYI's ideas (and those of MAX WEBER⁹¹ before him) is to remind us that the ancient Greeks did not necessarily share modern capitalism's (and marxism's) assumptions about human nature and human society when it came to economic exchanges.⁹² If we were to ask today, What is a healthy economy?, the answer, to judge from current news reports and governmental actions, would be that a healthy economy is one which assures a good return or better for investors, i.e. for those who own the means of production. An ancient Athenian would probably have trouble understanding the concept of a healthy economy,⁹³ but with some further explanation about markets and systems of exchange he

⁸⁹ The assumption here is that most of those who were not yet adults when the controls were first introduced probably gave little thought at the time to how food prices were set, and were therefore unlikely to remember the status quo ante in any detail later in life.

⁹⁰ Cf. POLANYI (1968) 109, speaking of Aristotle's view of the economy, but also describing, I believe, the economy as experienced by ordinary Athenians: «market and trade are here thought of as separate and distinct institutions; prices, as produced by custom, law, or proclamation; gainful trade, as «unnatural»; the set price, as «natural»; fluctuation of prices, as undesirable; and the natural price, far from being an impersonal appraisal of the goods exchanged, as expressing the mutual estimation of the statuses of the producers.»

⁹¹ M. WEBER, *Agrarverhältnisse im Altertum*, Jena 1909 (transl. R.I. FRANK, *The Agrarian Sociology of Ancient Civilizations*, London – Atlantic Highlands NJ 1976, 37–366).

⁹² On these assumptions shared by both capitalism and marxism see the telling paragraph in DALTON (1968) xxvii fin., and cf. VON REDEN (1995) 217–19.

⁹³ Cf. FINLEY (1970) 18–25.

would probably answer that a healthy economy is one in which there is an adequate supply of goods available at a fair (i.e. familiar or normal) price. The difference in the two responses is one of perspective: the contemporary view looks at things from the perspective of the producer, the Athenian view is that of the consumer.⁹⁴ Conceptually, the contemporary view starts with the assumption that competitive markets are normal. The Athenian view starts with the ideal of self-sufficiency (*autarkeia*), which is ultimately defined in terms of consumption, viz. that domestic production will ideally meet the needs of domestic consumption, and that markets exist only to meet the needs and wants which domestic production cannot. Within such a framework, markets are better understood as a service to the consumer than as an opportunity for profit for the producer (or intermediate seller). This focus on the consumer will go a long way toward explaining why Athenian public intervention in the grain market was limited to keeping prices down and assuring that necessary supplies were available.

Generally speaking, contemporary views of the economy takes it for granted, almost as a manifestation of human nature,⁹⁵ that where markets (in the economic sense) exist prices will be (and should be) determined by the competitive forces of supply and demand. There are, however, other ways of structuring markets and determining prices that do not involve supply and demand, and the concept of a fair price, rooted in communal solidarity, is one of them. This does not mean that in such communally oriented markets no one will ever take advantage of decreased supplies to increase prices and profits. What it does mean, however, is that pricing based on the competitive operation of supply and demand will be the exception, not the norm, occurring only when the markets are severely stressed by grave shortfalls in supplies. It also means that when sellers raise prices in times of shortage they are liable to the community's censure for «profiteering», and the likelihood of such censure can act as a deterrent restraining (even when it cannot totally suppress) any tendency among community members to increase prices under conditions of decreased supplies.⁹⁶ This would have been especially true in the kind of repeated small-scale face-to-face transactions which must have characterized the Athenian grain trade below the wholesale level, with each miller and baker purchasing grain from his regular *sitopōlēs* supplier on the one hand,

⁹⁴ AUSTIN and VIDAL-NAQUET (1973) 113.

⁹⁵ Or more precisely, of acquisitiveness as an inevitable part of human nature.

⁹⁶ In a similar fashion, as we have seen (above at note 69), during food crisis *emporoi* were applauded not only for bringing grain to market but also for selling it at conventional prices rather than at prices elevated by decreased supplies. What MILLETT (1991) 98 says of borrowing and lending can be equally said of pricing: «The Athenian moral code made it difficult for citizens to behave like the rational economic men of neo-classical theory.»

and selling *alphita* or bread to a relatively small number of familiar customers on the other.⁹⁷

A final comment: what has been said here about Athens' urban grain market (market, again, in the economic sense) is meant to apply only to that market. Far more grain was commercially exchanged in the Athenian economy than any other commodity in terms of both volume and number of transactions, and probably in terms of total value as well, and Athens' grain market was almost certainly bigger than that of any other *polis*. Moreover, grain and grain products were a necessity for the Athenians in a way that even e.g. sandals or charcoal were not. Because of its size and its vital importance the Athenian grain market was unique, and any conclusions one can draw about it should not be generalized to other markets (in Athens or elsewhere) without further evidence and argument.

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⁹⁷ Cf. above at note 52 on the role that limiting *sitōpolai*'s inventories may have had in keeping «big money» out of this level of the grain trade, thereby ensuring that it would remain a face-to-face business; and cf. MILLETT (1991) 147 on the continuation of neighborhood communities within the larger urban agglomeration.

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