

EDWARD E. COHEN (PHILADELPHIA)

UNINTENDED CONSEQUENCES? THE ECONOMIC EFFECT OF ATHENIAN TAX LAWS

Although social scientists in recent years have been increasingly insistent on the economic importance of “institutions” (the laws, rules, and informal arrangements that govern individual societies¹), few empirical studies have been undertaken to confirm the impact of such legal arrangements on economic phenomena,² and, to my knowledge, none in Athenian history. In this paper, I seek to demonstrate that in fourth-century Athens, tax laws and administration effectively encouraged the growth of a clandestine (*aphanês*) economy which provided much of the capital investment required for maritime commerce – although there is no indication in surviving sources that such an effect was intended. Yet this flourishing commerce then created new wealth that, because of Athens’ taxation policies, tended to remain within the clandestine economy, providing yet more potential capital for sea trade – thus fueling the growth of Athens as the dominant entrepôt in the eastern Mediterranean, and fostering the private banks which expedited this trade.³

I. Context and Methodology

“New Institutionalism,” although compatible with the assumptions and aims of neoclassical economics,⁴ represents a “revolution in the social sciences” through which legal policies, especially those relating to property rights, contracting and transaction costs, have been “held accountable for an increasingly wide range of political and economic outcomes.”⁵ Yet legal historians have been slow to make use of this New Institutionalism, probably because of an inherent conflict between

¹ For a survey of recent legal approaches to the New Institutionalism, see Mercurio and Medena 1997: 130-56. Cf. Liebcap 1989.

² In one recent study, De Soto (2000: 88-91) has adumbrated a relationship between ineffectual tax administration and the decline of the European mercantile system.

³ My thesis is obviously incompatible with the assumption (prevalent through much of the 20th century) that Athens did not even have an “economy,” and that speaking of “capital investment” and “tax policy” in classical antiquity is anachronistic “modernizing.” Recent studies, however, generally attribute to the Athenians considerable sophistication in dealing with economic arrangements, and old dogma seems to be fading. See Schaps 1998; Morris 1999; Shipton 2000; Andreau, Briant, and Descat, eds. 2000; E. Cohen 2001.

⁴ See, for example, Matthews 1986: 917; Williamson 1985a, 1985b; Coase 1984.

⁵ Haber 1999. Cf. Harriss, Hunter and Lewis, eds., 1995; Dixit 1998: 45-46.

history, “whose central question is to account for change over time” (North 1990: 131), and neoclassical economics, which paradigmatically offers a quantitative analysis of the allocation of resources at a specific single moment.⁶ In the case of ancient legal history, there is an additional complication. Cliometric approaches typically seek to apply neoclassical economic theory through quantitative techniques, but an “ignominious truth” – “that there are no ancient statistics”⁷ – seemingly elides the basic building-block of cliometric analysis. But, as partial recompense, a large number of law-court presentations – many dealing with business and finance – *are* preserved from Athens in the fourth century B.C.E.⁸ Although Athenian forensic speeches are rhetorical contrivances that virtually always present evidence tendentiously (and often dishonestly), the presuppositions underlying litigants’ claims are generally reliable: since court presentations were made to panels composed of hundreds of jurors – with persuasion the speaker’s dominant motive – the presence of a general phenomenon may be confirmed by a claim that presupposes such a phenomenon, even if we cannot establish (or strongly doubt) the truth of the speaker’s specific factual assertion.⁹ When, for example, a litigant in Isokrates’ *Trapezitikos* (17.4) claims that a slave acting without supervision legitimately provided him with the huge sum of six talents from bank funds, we may not be able to determine whether the transaction actually took place or was appropriate, but we *can* be sure that slaves working in banks at Athens did on occasion handle large sums of money without supervision. This method of “forensic attestation,” used by legal historians for decades, is of special value to historians studying institutions and markets precisely because it extends scholars’ capacity, in North’s phrase, “to account for change over time” by facilitating comparative analysis of an area otherwise largely closed by the absence of quantitative data.

II. Tax Law and Administration

Fourth-century Athens had desperate need of revenues: the long-term decline in income from the silver mines (which were state-owned) exacerbated the adverse effects of Athenian defeat in the fifth-century Peloponnesian War, which had left Athens bereft of revenue from tribute-paying dependencies.¹⁰ But domestic levies

⁶ A further seminal difficulty: neoclassicism assumes a “frictionless” universe – one in which institutions are non-existent or of no importance; economic history usually focuses on a process of “friction” – human interaction – that generates divergent phenomena under varying conditions.

⁷ Jones 1948. Cf. Momigliano 1952; Andreau, J., P. Briant and R. Descat 1997: 5-6; Cartledge 2002: 159.

⁸ These speeches provide “the best image of contemporary society” (Garlan 1988: 16: cf. Mossé 1996: 79) – albeit a view fragmentary in content and chronologically largely limited to the fourth century.

⁹ Cf. Cohen 1990: 178, 186-90; Millett 1991: 2; Todd 1990.

¹⁰ On the long-term depression in silver production (which had been entirely disrupted by the war), see Hopper 1953: 215-16, 250-52; Ober, 1985: 28-29; Mussche 1994:

remained available, and through much of the century an extreme form of “progressive” taxation prevailed¹¹ – confiscatory rates, paid only by that small number of persons who owned, or in reality *appeared* to own, the largest amounts of property.¹² Because fiscal obligations were imposed exclusively on the wealthy, the term “taxpayers” (*leitourgountes*) became in popular usage interchangeable with “the rich” or “the well-off.”¹³ The rest of the population, characterized as “poor” (*penêtai, aporoi*),¹⁴ were totally free from the payment of taxes. For much of the fourth century, from a resident population of some 300,000, less than 1,000 were subject to tax, but in daunting amounts.¹⁵

Although modern scholarship parrots the romantic notion that Athenian taxpayers gloried in paying governmental charges and contended in *agonistic* fervor to advance ever greater sums,¹⁶ Athenian literature is replete with the bitter complaints of ruin and injustice emanating from that small minority of unhappy “benefactors” (*euergetai*) who alone were forced to meet virtually all of the state’s needs.¹⁷ But their complaints did not change public policy: the Athenians envisioned

214-15. For the resultant adverse effect on state revenues see Hopper 1968. During some periods of the fourth century Athens did receive some revenue from outlying areas: the inscription published in Stroud 1998 discloses a 1/12 tax on grain production from Lemnos, Imbros and Skyros.

¹¹ “Progressive” taxation collects from the richer elements of society proportionally more than from the poorer. In Western Europe and North America, fiscal policies between 1800 and 1920 gradually transformed essentially regressive arrangements into increasingly progressive imposts: see Steinmo 1993: 50-79. For the widespread “regressive” redistribution of tax burdens in these countries in the 1980’s, see OECD 1989: 84-105.

¹² For the rich, the tax burden constituted a “bleeding of the wealthy” (εἶδος δημεύσεως; Andreades 1992: 460), a “redistribuzione a favore delle masse popolari” (D’Albergho in Gera 1975: 13). Cf. Isager and Skydsgaard 1992: 135-44; Migeotte 1995: 10.

¹³ Arist., *Pol.* 1291a33-4: τὸ ταῖς οὐσίαις λειτουργοῦν, ὃ καλοῦμεν εὐπόρους. See [Xen.] *Ath. Pol.* 1.13; Dem. 21.151, 153, 208; Isok. 8.128; Lys. 27.9-10.

¹⁴ Dem. 18.102, 108. Cf. Hemelrijk 1925: 140-42.

¹⁵ Davies (1971: xx-xxi; 1981: 14-24, 26-27) and Ober (1989: 117, 128) posit fewer than 500 (about 100 for festival liturgies, an additional 300 for trierarchies). Ruschenbusch (1978 and 1985) argues for about 300 in total. But a maximum number in certain years in the 370s might be as high as about 1,200 (assuming that *eisphora* and *proeisphora* [see below] were levied consecutively for 3 years, that certain trierarchies were handled jointly by pairs of taxpayers [syntrierarchs], that 40 replacements were recruited each year, and that exemptions from consecutive annual contributions were fully available and utilized [as suggested at Isok. 18.60]). For exegesis of these factors, see Gabrielsen 1994: 176-80; Jones [1957] 1977: 85-86; Rhodes 1982: 3-5, 11. For the “head tax” paid by metics, see n. 17 below.

¹⁶ For extreme assertions of this ardor, see Guiraud 1893: 531; Finley (1985) 1999: 150-52.

¹⁷ At an earlier period, liability for taxes was likely far broader. Of the four Solonian propertied classes, only thetes originally were relieved of the obligation to pay taxes

the resources of the wealthy as held in trust for the people. According to Xenophon, Athens would punish a rich person who experiences financial reversals “just as though he were caught robbing it of its own property.”¹⁸

“Liturgies” – originally a combination of payment and personal service¹⁹ (such as undertaking the expenses of and *commanding* a war ship for a year, or paying for and *producing* a dramatic or choral performance)²⁰ – by the fourth century had in essence become merely a method of financing public functions. The service portion was now optional, since one could hire someone else to do the training or to do the commanding.²¹ Athens was also an “equal opportunity” revenue extractor: liturgists did not have to be citizens; they only had to pay.²² And these imposts – broadly divided between festival and military obligations – were expensive. The least costly

(Arist. *Ath. Pol.* 7.4) – and precluded from holding office. In the fourth century, men were still being queried concerning their property class and their tax status (although such divisions “existed as a mere formality with no significance” [Hansen 1991: 109]; cf. Arist. *Ath. Pol.* 55.3: τὰ τέλη εἰ τελεῖ). Metics who lacked *isoteleia* did pay the *metoikion* (a charge of 12 *dr.* per year for males, 6 *dr.* for women), characterized by Whitehead as “negligible” for the individual (1977: 76).

¹⁸ Xen., *Oikon.* 2. 7: σε τιμωρήσονται Ἀθηναῖοι οὐδὲν ἦττον ἢ εἰ τὰ αὐτῶν λάβοιεν κλέπτοντα.

¹⁹ Davies 1971: xx.

²⁰ For a summary of the system, see Christ 1990: 148-51. Festival liturgies: Wilson 2000: 11-46. Naval liturgies: Gabrielsen 1994: 3-15.

²¹ Provision of service was early in the century a “pretense,” and even the pretense vanished with the passage of time (Gabrielsen 1994: 181). Cf. Dem. 21.80: δίδωμ’ εἴκοσι μνᾶς τούτοις, ὅσου τὴν τριηραρχίαν ἦσαν μεμισθωκότες. Dem. 51.7: μεμισθώκασιν τὴν λητουργίαν.

²² Demosthenes posits 5-10 metics per year serving as *chorēgoi* (and perhaps 6 *politai*). Dem. 20.18-21. Specific festival liturgies attested for non-citizens: Sôsikratês and possibly Stratonikos at *SEG.* 32: 239; Timôn (Lewis 1968: no. 51.49-50, and possibly a lost name at 46-47); Lysias and Polemarkhos at *Lys.* 12.20. Cf. Schol. to Aristoph. *Ploutos* 954: ἐν δὲ τῷ Λεναίῳ ... μέτοικοι ἐχορήγουν. Wilson (2000: 51-52) suggests that metics might have predominated as *chorēgoi* at the Lenaia performances, and that *politai* might have been dominant at the Dionysia. Deme liturgies: Ikarian *chorēgoi*: *IG* II² 3094, 3095, 3098, 3099; *IG* II² 1178, lines 8-9. Cf. Theban Damias: *IG* II² 1186, lines 11-13, boys’ and men’s dithyramb. Metics serving as trierarchs: Kallaiskhros Siphnios (*IG* II² 1609.27) and his son Stêsileidês (1623.204-5, 251-52, 268-75; 1631.435); Pasiôn, responsible for five triremes before obtaining Athenian *politeia* (Dem. 45.85; Davies 1971: 11672 IV; Trevett 1992: 5-6, 21-22); the Egyptian Pamphilos who commanded the trireme financed by Meidias (MacDowell 1990: 382-83); Hêrakleidês Erythraios (*IG* II² 1491.26, 1492.106); Antimakhos of Khios (*IG* II² 40.10; 1604.79); Jordan 1975: 90, M. Osborne 1981: 155. Some scholars reject this evidence on the *a priori* denial “that in the fourth century the state would have permitted non-citizens even to volunteer for the liturgy” (Clark 1990: 66). Cf. Gabrielsen 1994: 61.

obligation (a Panathenaic chorus) required 300 *dr.*,²³ an amount virtually equal to the entire annual income of a skilled workman. The most expensive – and not rare²⁴ – commitment, the individual maintenance of a warship for a year, cost about a talent (6,000 *dr.*),²⁵ probably a quarter to a third of the entire (known) net assets of many members of the liturgical class of wealthy tax-payers. The least burdensome liturgy constituted “the major part of a man’s income” (Davies 1981: 82). Nor was the obligation, like modern estate taxes, a one-time spoliation. The liturgies recurred annually,²⁶ although, during certain periods at least, an individual was exempt from performing a liturgy in two successive years.²⁷

Even beyond these exactions, a further tax, the *eisphora*, was levied on property held by the wealthiest residents of Attica, assessed at intervals, sometimes annually, to provide funds for a specific undertaking such as a naval campaign.²⁸ This *eisphora* is known in individual cases to have amounted to thousands of drachmas.²⁹ And from the 300 individuals who were identified as the very wealthiest,³⁰ the state required a contribution of *proeisphora*, in effect tax anticipation payments (but without any state commitment that sums advanced would be recovered). And in those years when there was no general *eisphora* (and thus no call for *proeisphora* payments), wealthy individuals might be called upon to provide “contributions” (*epidoseis*) for public sacrifices, repair of theaters and the like – in form voluntary but in fact, by the fourth century, a further compulsory extraction.³¹ (In addition, there were “deme

²³ Dem. 21.155. There is a single reference (*IG* II² 417) to a *eutaxia*-liturgy which supposedly cost only 50-100 *dr.* (but it is never mentioned again and “was probably short-lived” [Davies 1981: 9]).

²⁴ [Xen.] *Ath. Pol.* 3.4; Dem. 18.102-109; Aischinês 3.222; Dein. 1.42; Hyper. fr. 134, 159 [Jensen = 160, 173 (Sauppe)].

²⁵ Dem. 21.155. Cf. Lys. 19.29, 42; 21.2; 32.24, 27; Dem. 21.80. Epigraphic sources suggest even higher sums: see Gabrielsen 1994: 221-23, 270-71 (notes 4-6). “A conservative estimate is 3,000 *dr.* (1/2 talent) each” (Salmon 1999: 152).

²⁶ See Katayama 1970. Cf. Whitehead 1977: 80-82.

²⁷ Dem. 20.8, 28; 50.9. See Gabrielsen 1987: 7-8, 1994: 224; MacDowell 1990: 372.

²⁸ On the *eisphora* system, see Thomsen 1964; Brun 1983: 3-73; Gera, 1975: 31-84. For imposition of the tax on metics as well as citizens, see *IG*² II-III. 244.26 and the fragment from Hypereides preserved at Pollux 8.144. Cf. Whitehead 1977: 78-80 and 1986a: 146. There is considerable evidence for annual imposition of the *eisphora* from 347/6 to 323/2. See Thomsen 1964: 239-43.

²⁹ See Lys. 21.3 (payments of 3,000 *dr.* and 4,000 *dr.* in the late fifth century); Lys. 19.43 (4,000 *dr.* paid by two individuals in the late 390’s); Dem. 27.37 (1,800 *dr.*, mid-fourth century).

³⁰ See Isai. 7.60; Aischin. 3.222; Dein. 1.42; Hyper. fr. 154; Dem. 18.103, 18.171, 21.153, 37.37, 42.4, 42.5, 42.25, 50.8-9. For various (highly disputed) aspects of this grouping, see Wallace 1989.

³¹ See Isaios 5.38. Littman 1988: 802: “Although the voluntary nature of these public contributions prevailed in the fifth century, the institution of *epidoseis* was formalized in the fourth (century) and became virtually compulsory.”

liturgies” and deme-based property taxes that likewise were “progressive” in application and were imposed on both citizens and non-citizens.³²)

Since all these charges were imposed only upon those who APPEARED to own the largest amounts of property, the system provided direct motivation for the masking of assets and the growth of the “invisible” economy.³³ Lysias notes explicitly that for a wealthy man, the decision to maintain his assets in visible form was a determination to undertake the burdens of taxation.³⁴ Although officials initially assigned tax obligations to specific individuals,³⁵ through a litigational process called *antidosis* (“exchange”) a named taxpayer might insist that another (allegedly wealthier) man undertake the commitment.³⁶ In this court contest, losers were almost certainly to be those who had maintained their assets in more visible form and so could be shown to have the larger estates. But skill at hiding assets could have no adverse effect on state revenues: one person’s success (in avoiding taxes) was attained at another’s cost (in paying those taxes).³⁷

The tax system thus offered wealthy residents of Attica considerable incentive to place or keep their property in the “invisible” (*aphanês*) economy, where financial assets – deposits and loans – constituted the least traceable form of unseen property, a key nexus between tax policy and the growth of maritime capital markets.

III. The Clandestine Economy

In line with the well-known Greek tendency to organize language and life binomially through complementary opposites, the Athenian economy was effectively divided

³² This may, at least partially, explain why wealthy landowners tended to hold real estate in scattered, fragmented parcels distributed over a number of demes – resulting in uncertainty (and considerable misinformation) concerning the identity of landowners and property occupants. See Cohen 2000: 124-29. Cf. Foxhall 1992, Osborne 1991. On the *egktêtikon* levy (a tax on landed property within a deme), see *IG II²* 1214, lines 26-28. Thebans resident in Eleusis (*IG II²* 1185-86) and some *politai* (see *IG II²* 1187, lines 16-17 and *IG II²* 1188, lines 29-30) received exemption from taxes without differentiation of personal position. Cf. n. 22 above.

³³ Athens also imposed indirect taxes, especially harbor imposts (see Stroud 1998: 27-28; Harris 1999: 270-72; Gofas 1994: 59-62). As with direct charges, however, the structuring of these taxes also gave impetus to evasion and encouraged clandestine transactions: see Dem. 35.28, 53.

³⁴ Lys. 20.23. Cf. Dem. 28.3.

³⁵ See Arist., *Ath. Pol.* 61.1; Dem. 14.16, 39.8, 50.44, 50.66; Ikarion-decree found in 1983, Bingen (1972-76) 1984, no. 75 (with fig. 109), lines 2-3, 5, cf. Whitehead (1986b).

³⁶ On the ἀντίδοσις, see Gabrielsen 1987; Christ 1990: 160-68.

³⁷ In contrast to the systems prevalent in the modern world where changes in the value of residents’ total property or income result in differences in overall taxes due, the Athenian state received the same revenues or services without reference to overall economic conditions and without regard to the identity of the particular taxpayers ultimately liable.

into “disclosed” (*phanera*) and “invisible” (*aphanês*) markets.³⁸ In the disclosed market, real-estate loans were attested by boundary-stones placed openly on property, and estates were transferred with full confirmation of already-known holdings, principally real-estate.³⁹ In the *aphanês* or “invisible” market, investments and ownership were cloaked in secrecy, protected from tax-collectors and creditors. The bankers’ inventory of loans and deposits was the archetype of “invisible” assets since they were both intangible and protected by professional confidentiality.⁴⁰ According to Isokratês, Athenian bankers – because of their reputation for integrity, their many connections, and their large scale of financial operations – were able, in secrecy, to obtain and work with great amounts of money.⁴¹ Thus Demosthenes’ father, who dealt extensively with Athenian banks,⁴² concealed much of his property throughout his lifetime and avoided ever paying taxes.⁴³ The wealthy Stephanos was accused of acting in concert with his bankers “to conceal his wealth in order that he might obtain secret returns through the bank” (*dia tês trapezês*). In Demosthenes 47 (§ 52), a debtor believed to be wealthy, but in fact overwhelmed by taxes and assailed by creditors, acknowledges that he kept little tangible property but held large deposits “at the bank” (*epi têi trapezêi*). And through the Bank of Pasiôn, the “Prime Minister” of the Bosporan kingdom, Sopaios, sought to hide vast sums – sufficient to secure loans in the massive amount of at least 42,000 *dr.* (Isok. 17.40).

Bankers also made loans in secrecy. A good example is the loan of 3,000 *dr.* provided by the Bank of Hêrakteidês to a ship-owner from Byzantion.⁴⁴ Although Hêrakteidês supplied the bulk of the monies for the loan, he did not appear as a named creditor. The financing instead was structured as a “purchase” (*ônê*) in which a “straw-party” became the stated “owner” of the ship (thus shielding the actual lender

³⁸ The Greek tendency to understand and to organize phenomena through contrast, indeed preferably through antithesis, has been much studied: see especially Lévi-Strauss 1967; Vernant and Vidal-Naquet 1969; Lloyd [1965] 1987: 15-85. “Binary division” was so central to Hellenic culture that it has been said to have “dominated Greek thought” (Garner 1987: 76, who lists numerous examples of the phenomenon at pp. 75-83).

³⁹ The “disclosed” contents of decedents’ estates, revealing almost no bank deposits, are thus highly misleading about the scale of bank activity in Athens.

⁴⁰ On the legal implications of this differentiation, see Gernet 1981: 347-48.

⁴¹ Isok. 17.2. The good repute of Athenian bankers has often been noted. Millett, for example, points out the “paradox” between the frequent criticism in our sources of other money-lenders and the “absence of attacks on bankers” (1991: 197). Indeed, the only negative comment in all of Greek literature about *trapezitai* is Antiphanês fr. 182 (K.-A.) = Athênaios 6.226d, where they are grouped with priests, teachers, nurses, merchants and midwives as a “rather harmful tribe” (ἔθνος ἐξωλέστερον).

⁴² Dem. 27. 11. See Paoli [1930] 1974: 20, n. 2.

⁴³ See Davies 1971: 128-129; Ste. Croix 1953: 55, n. 105.

⁴⁴ This loan is described in detailed in Demosthenes 33.

from disclosure),⁴⁵ a form of financing analogous to the “Deed of Trust” lending found in a number of American states. Numerous other cases are known of maritime “lenders” who were bank customers and appear to have “fronted” loans actually provided “through the bank.”⁴⁶ Although the *trapezitai* normally did maintain written records of their transactions, the verb *aphanizein* (“to erase”) was the quasi-technical reference to banking transactions which were omitted even from the banks’ internal records.⁴⁷

The Athenian bankers even provided the liquidity for smooth operation of the vaunted Athenian democracy. When discreet payments were needed to facilitate political arrangements or to forestall prosecutions, bankers frequently provided the funds anonymously (as in the famous case of Meidias where the banker Blepaios, approaching Demosthenes, was greeted in the Assembly with shouts of *tout’ ekeino* – “Here we go again!” – reflecting the crowd’s belief that bribe money was being delivered) (Dem. 21.215).

The existence of this secret sphere was much bruited,⁴⁸ and allegations of tax avoidance or creditor evasion were frequent.⁴⁹ Yet explicit exposure was exceptional. In one spectacular example, a portion of the Acropolis complex was burned down by public officials (the Treasurers of Athena) in a desperate effort to avoid disclosure of the corrupt loss of public monies that were supposed to be lying untouched in the sacred treasury. These funds had secretly been deposited, for the officials’ profit, with bankers who had promised to return the money immediately if needed. But the banks failed, and the monies were lost. The resulting spectacular investigation of this spectacular arson resulted in incarceration of many officials and unwonted illumination of the “unseen” economy (Scholion to Dem. 24.136).

IV. Financing of maritime trade

Because hundreds of ship-cargoes were required annually to satisfy Attica’s enormous need for food and other items, fourth-century Athens was entirely dependent on

⁴⁵ § 8: ὄνην ποιῶμαι τῆς νεῶς καὶ τῶν παίδων, ἕως ἀποδοίῃ τὰς τε δέκα μνᾶς ἄς δι’ ἐμοῦ ἔλαβεν, καὶ τὰς τριάκοντα ὧν κατέστησεν ἐμὲ ἐγγυητὴν τῷ τραπεζίτῃ.

⁴⁶ For eight other cases, see Thompson 1979: 234, n. 56. Similarly, Apollodōros’ advance to Nikostratos of 1,000 *dr.* was funded by the banker Theoklēs (Dem. 53.9).

⁴⁷ Cf. Bogaert 1986: 16; Lipsius 1916: 185. See Dem. 45.66 (ἐργασίας ἀφανείς); Isai. 11.47.

⁴⁸ Many rumors of clandestine wealth ultimately proved to be untrue. See, for example, Lys. 19.45. Cf. Hunter 1994: 96-119.

⁴⁹ Dem. 1.8-9, 24.197-98, 38.26, 47.54, 50.8-9, 52.26; Isai. 4.27, 6.60-61, 7.40; Isok. 8.128, 12.145; Lys. 7.31-32, 12.20, 18.7, 18.21, 19.9, 19.29, 19.57-59, 20.23, 28.3, 29.4, 30.26; Xen. *Hell.* 6. 2. 1; *Symp.* 4. 30-32; Hyper. fr. 134; Arist., *Pol.* 1309a 15ff.; Antiphanēs fr. 204, II 98K; Dem. Phal. fr. 136 Wehrli = Plut. *Mor.* 349a; Diod. 13.47. 7, 52.5, 64.4; Anaximenēs 2 (p. 22, lines 5ff. ed. Hammer). See Davies 1981: 82-84; Wyse [1904] 1967: 396; Christ 1990: 150-57.

maritime trade,⁵⁰ and – in the perceptive words of an Athenian litigant – this trade in turn was entirely dependent on the availability of financing.⁵¹ This financing, in large part, appears to have come from bankers cycling into maritime commerce funds generated from the clandestine economy – a process termed by the Greeks *ekdosis* (“intermediation”).⁵² Although we have no statistical evidence to quantify the role of bankers in the financing of maritime trade, extensive ancient evidence shows the pervasiveness of this “intermediation” and reveals the mechanisms through which it operated and the practical insignificance of other available sources of funding.⁵³ The government, for example – aside from laws and regulations intended to secure the availability of grain for local consumers – entirely avoided involvement with trade, and in any event had no mechanism, such as a state bank, for providing funding. Professional traders, shippers and ship-owners were perpetually short of funds: they were net users, not providers of capital.⁵⁴ Substantial monies *were* available,

⁵⁰ Despite wide variability in the assumptions, methodologies and conclusions of the large number of scholars who have studied the grain import requirements of Athens, virtually all agree on the need for extensive imports of grain: Whitby 1998 (with extensive reference to primary sources and prior scholarship). Even Garnsey’s minimalist estimate of a requirement of only 400,000 medimnoi, “enough to feed around 90,000 people,” in certain years (1985: 74) would still have required almost 300 one-way trips – 150 trips from and to Athens, ἀμφοτερόπλουιν. In fact, on a single occasion and in a single area, Philip of Macedon in 340 seized between 180 and 230 grain ships bound for Athens (Bresson 1994). And beyond grain, many other food and non-food items were imported to Athens by sea. (For a summary list, see Hopper 1979: 92.) Garland (1987: 85) suggests that non-grain imports to Piraeus were probably equal in number of shiploads to those required for grain. (The primitive condition and high expense of overland transport precluded any considerable delivery by land: see Biscardi 1982: 28; Bleicken 1985: 73).

⁵¹ Dem. 34.51: αἱ γὰρ εὐπορίαι τοῖς ἐργαζομένοις οὐκ ἀπὸ τῶν δανειζομένων, ἀλλ’ ἀπὸ τῶν δανειζόντων εἰσίν, καὶ οὔτε ναῦν οὔτε ναύκληρον οὔτ’ ἐπιβάτην ἔστ’ ἀναχθῆναι, τὸ τῶν δανειζόντων μέρος ἂν ἀφαιρεθῆ.

⁵² Although relatively high returns on sea finance allowed bankers to offer enticing terms, individual arrangements varied with the bankers’ need for funds, the customers’ need for confidentiality, terms offered by competitors, general economic conditions, and – possibly most importantly – the banker’s reputation for solvency and integrity (see Dem. 36.44; Isok. 17.2). And regardless of the terms negotiated, maritime investors were always ultimately dependent on the financial strength of the individual banker to whom funds were delivered. Although Stephanos was accused of obtaining clandestine profit through his banking connections, he was in fact involved not only with the highly successful banker Phormiôn but also with the bank of Aristolokhos whose insolvency ruined many customers (Dem. 36.50, 45.63-64).

⁵³ On *ekdosis*, its mechanisms and implications, see Cohen 1992: 157-83. Cf. Gernet 1981: 350 n. 14.

⁵⁴ Hasebroek [1933] 1978: 7-8: “merchants and shipowners were invariably without any capital worth mentioning of their own. They were always in difficulties, they had no reserves to fall back upon, they possessed nothing that might serve as security for

however, for maritime investment by individuals having no personal involvement in overseas commerce. While in the sixth century residents of Attica disposed of virtually no wealth “which could not be measured in terms of agricultural produce” (Davies 1981: 38), by the end of the Peloponnesian War and the beginning of the fourth century, there had been a total transformation in liquidity. Numerous new sources provided cash for investment in maritime trade: the growth of industrial workshops, the exploitation of silver-mines leased from the state, receipt in cash of rents for houses and real-estate in Attica,⁵⁵ returns on investments in property outside Attica, re-investment of continuing profits from the financing of trade.⁵⁶ Much of this money was used to fund overseas commerce (M. V. Hansen 1984: 71). But not directly. The complexity of maritime trade, requiring knowledgeable and highly-organized, personally-involved lenders,⁵⁷ effectively precluded an independent role for *rentiers*. Most importantly, many of these investors needed the anonymity of working through others: as we have seen, much money for investment was being generated from the “invisible” economy, avoiding taxes and creditors (and Athenian laws requiring grain to be imported into Attica even when higher prices were available elsewhere⁵⁸). To meet the myriad needs of inactive and undisclosed lenders, and of borrowers working in trade, not in finance, an intermediary was needed. As chronicled by the protracted litigation involving the Bank of Pasiôn and the estates of Demosthenes and Diodotos, “through the bank” an intermediary was often present.⁵⁹ But the availability of capital for this intermediation was ultimately dependent on the confiscatory tax policies of Athens. A less “progressive” tax system might have fostered conspicuous consumption instead of effectively mandating the channeling of money into the invisible realm of the bankers – who marshalled it for the capital markets that enabled fourth-century Athens, shorn of her empire, to feed her population and to achieve commercial primacy in the eastern Mediterranean.

a loan but their ship or the goods that borrowed money had enabled them to buy.” This view is somewhat overstated: see Cohen 1992: 152.

⁵⁵ For the legal basis and implications of such leasing, see Thür 1989; for its extent, consider the significant value of real-estate held for commercial lease in even middle-class families (Jones [1957] 1977: 89, 151-52, n. 61).

⁵⁶ For detailed consideration of these new sources of personal wealth, see Shipton 1997: 403-9; Davies 1981: 41-66. Cf. Mossé 1973: 42-49.

⁵⁷ Millett 1983: 52: “the complexity of maritime credit made it an unsuitable field for casual lenders without practical experience in trading.”

⁵⁸ Arist. *Ath. Pol.* 51.4. Cf. Gauthier 1981: 19-28; Migeotte 1997: 33-38.

⁵⁹ While procedures at later times and distant places offer no guidance for practice at Athens, it is of interest that at Ephesos, in Roman Egypt, and in Rome itself, three of the areas for which ancient banking practices are best attested, bankers were involved in the making of maritime loans as intermediaries. See Rougé 1966: 348-60, especially 349, 355. Cf. Andreau 1999: 56. (For our extremely limited knowledge of credit operations by private bankers in Ptolemaic Egypt, see Bogaert 1998-99: 142-43.)

BIBLIOGRAPHY

- Andreades, A. 1992. *Ίστορία τῆς ἑλληνικῆς δημοσίας οἰκονομίας*. I. Revised Edition. Athens.
- Andreau, J. 1999. *Banking and Business in the Roman World*. Cambridge.
- Andreau, J., P. Briant and R. Descat, eds. 1997. *Économie antique. Prix et formation des prix dans les économies antiques*. Saint-Bertrand-de-Comminges.
- 2000. *Économie antique. La guerre dans les économies antiques*. Saint-Bertrand-de-Comminges.
- Bingen, J. [1972-76] 1984. "Inscriptions (III)." *Thorikos* 8: 175-77.
- Biscardi, A. 1982. "Introduction à l'étude des pratiques commerciales dans l'histoire des droits de l'Antiquité." *Revue internationale des droits de l'antiquité* (3rd Ser.) 29: 21-44.
- Bleicken, J. 1985. *Die athenische Demokratie*. Paderborn.
- Bogaert, R. 1986. "La banque à Athènes au IVE siècle. Etat de la question." *Museum Helveticum* 43: 19-49.
- 1998-99. "Les opérations des banques de l'Égypte ptolémaïque." *Ancient Society* 29: 49-145.
- Braudel, F. 1981. *The Structures of Everyday Life*. New York.
- Bresson, A. 1994. "L'attentat d'Hiéron et le commerce grec." In *Économie antique. Les échanges dans l'Antiquité: le rôle de l'État*, edited by J. Andreau, P. Briant and R. Descat, pp. 47-68. Saint-Bertrand-de-Comminges.
- Brun, P. 1983. *Eisphora, syntaxis, stratiotika*. Paris.
- Calhoun, G. [1926] 1968. *The Business Life of Ancient Athens*. Chicago.
- Cartledge, P. 2002. "The Political Economy of Greek Slavery." In *Money, Labour and Land in Ancient Greece*, edited by P. Cartledge, E. Cohen, and L. Foxhall, pp. 156-66. London.
- Christ, M. 1990. "Liturgical Avoidance and Antidosis in Classical Athens." *Transactions of the American Philological Association* 120: 147-69.
- Clark, M. 1990. "The Date of IG II² 1604." *Annual of the British School at Athens* 85: 47-67.
- Coase, R. 1984. "The New Institutional Economics." *Journal of Theoretical and Institutional Economics* 140 (N. 1): 229-31.
- Cohen, E. 1990. "Commercial Lending by Athenian Banks: Cliometric Fallacies and Forensic Methodology." *Classical Philology* 85 (1990): 177-90.
- 1992. *Athenian Economy and Society: A Banking Perspective*. Princeton.
- 2000. *The Athenian Nation*. Princeton.
- 2001. Review of Vols. 1-3 of *Économie antique* edited by J. Andreau, P. Briant and R. Descat. *American Journal of Archaeology* 105: 313-15.
- Davies, J. 1971. *Athenian Propertied Families, 600-300 B.C.* Oxford.

- 1981. *Wealth and the Power of Wealth in Classical Athens*. Salem N.H.
- Dixit, A. 1998. *The Making of Economic Policy: A Transaction-Cost Politics Perspective*. Cambridge, Mass.
- Finley, M. (1985) 1999. *The Ancient Economy*. Berkeley.
- Foxhall, L. 1992. "The Control of the Attic Landscape." In *Agriculture in Ancient Greece*, edited by B. Wells, pp. 155-59. Stockholm.
- Gabrielsen, V. 1987. "The Antidosis Procedure in Classical Athens." *Classica et Mediaevalia* 38: 7-38.
- 1994. *Financing the Athenian Fleet: Public Taxation and Social Relations*. Baltimore.
- Garlan, Y. 1988. *Slavery in Ancient Greece*. Ithaca, N.Y. (Originally published as *Les esclaves en Grèce ancienne*. Paris 1982.)
- Garland, R. 1987. *The Piraeus*. Ithaca, N.Y.
- Garner, R. 1987. *Law and Society in Classical Athens*. London.
- Garnsey, P. 1985. "Grain for Athens." In *Crux: Essays in Greek History presented to G.E.M. de Ste. Croix*, edited by P. Cartledge and F. Harvey, pp. 62-75. London.
- Gauthier, P. 1981. "De Lysias à Aristote (*Ath. Pol.* 51.4): le commerce du grain à Athènes et les fonctions des sitophylaxes." *Revue historique de droit français et étranger* 59: 5-28.
- Gernet, L. 1981. "Choses visibles et invisibles." *Revue Philosophique* 146: 79-86 [= Chapter 16 of *The Anthropology of Ancient Greece*. Baltimore 1981: 343-51].
- Gofas, D. 1994. *θάλασσα και συναλλαγές στην αρχαία Ελλάδα*. Athens.
- Guiraud, P. 1893. *La Propriété foncière en Grèce jusqu'à la conquête romaine*. Paris.
- Haber, S. 1999. Statement of the Social Science History Institute at Stanford University. Conference on Institutions and Markets in Comparative-Historical Perspective. May 7-8, 1999.
- Hansen, M. H. 1991. *The Athenian Democracy in the Age of Demosthenes*. Oxford.
- Hansen, M. V. 1984. "Athenian Maritime Trade in the 4th Century B.C.: Operation and Finance." *Classica et Mediaevalia* 35: 71-92.
- Harris, E. 1999. "Notes on the New Grain-Tax Law." *Zeitschrift für Papyrologie und Epigraphik* 128: 269-72.
- Harriss, J., J. Hunter and C. Lewis, eds. 1995. *The New Institutional Economics and Third World Development*. London.
- Hasebroek, J. [1933] 1978. *Trade and Politics in Ancient Greece*. Translated by L. Fraser and D. MacGregor. Reprint. London. (Originally published as *Staat und Handel im alten Griechenland* [Tübingen 1928].)
- Hemelrijk, J. 1925. *Πενία εν Πλοῦτος* Diss. Utrecht.
- Hopper, R. 1953. "The Attic Silver Mines in the Fourth Century B.C." *Annual of the British School at Athens* 48: 200-54.

- 1968. “The Laurion Mines: A Reconsideration.” *Annual of the British School at Athens* 63: 293-326.
- 1979. *Trade and Industry in Classical Greece*. London.
- Hunter, V. 1994. *Policing Athens: Social Control in the Attic Lawsuits, 420-320 B. C.* Princeton.
- Isager S., and J. E. Skydsgaard. 1992. *Ancient Greek Agriculture*. London.
- Jones, A. 1948. *Inaugural Lecture: Ancient Economic History*. London.
- [1957] 1977. *Athenian Democracy*. Oxford.
- Jordan, B. 1975. *The Athenian Navy in the Classical Period*. Berkeley.
- Katayama, Y. 1970. “The Social Significance of Liturgies from the Viewpoint of the Participation of Metics.” *Journal of Classical Studies* 18: 40-51. In Japanese with English summary.
- Laufer, S. 1974. “Die Liturgien in der Krisenperiode Athens.” In *Hellenische Poleis*, edited by E. Welskopf, I: 147-59. Berlin
- Lévi-Strauss, C. 1967. “The Structural Study of Myth.” In *Structural Anthropology*, translated by C. Jacobson and B. Schoepf, pp. 202-28. Garden City, N.Y.
- Lewis, D. 1968. “Dedications of phialai at Athens.” *Hesperia* 37: 368-80.
- Liebcap, G. 1989. *Contracting for Property Rights*. Cambridge.
- Lipsius, J. 1916. “Die attische Steuerverfassung und das attische Volksvermögen.” *Rheinisches Museum für Philologie* 71: 161-86.
- Littman, R. 1988 “Greek Taxation.” In *Civilization of the Ancient Mediterranean*, edited by M. Grant and R. Kitzinger, Vol. 2, pp. 795-808. New York.
- Lloyd, G. [1965] 1987. *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought*. Cambridge.
- ed. 1990. *Demosthenes Against Meidias*. Oxford.
- Marx, K. 1970. *Capital*. Vol. 1. London.
- Matthews, R. 1986. “The Economics of Institutions and the Sources of Growth.” *Economic Journal* 96: 903-910.
- Mercuro, N. and S. Medina. 1997. *Economics and the Law*. Princeton.
- Migeotte, L. 1995. Review of Cohen 1992. *L’Antiquité Classique* 64: 461-62.
- 1997. “Le contrôle des prix dans les cités grecques.” In Andraeu, Briant and Descat, eds., pp. 33- 52.
- Millett P. 1983. “Maritime loans and the structure of credit in fourth-century Athens.” In *Trade in the Ancient Economy*, edited by P. Garnsey, K. Hopkins and C. Whittaker, pp. 36-52. Berkeley.
- 1991. *Lending and Borrowing in Ancient Athens*. Cambridge.
- Momigliano, A. 1952. *George Grote and the Study of Greek History*. London.
- Morris, I. 1999. “Foreword” to Finley (1985) 1999, pp. ix-xxxvi.
- Mossé, C. 1973. *Athens in Decline: 404-86*. London.
- 1996. *Les institutions grecques*. Paris.
- Mussche, H. F. 1994. “Thorikos during the Last Years of the Sixth Century B.C.” In *The Archaeology of Athens and Attica under the Democracy*, edited by W. D.

- E. Coulson, O. Palagia, T. L. Shear, Jr., H. A. Shapiro and F. J. Frost, pp. 211-15. Oxford.
- North, D. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge.
- Ober, J. 1985. *Fortress Attica: Defense of the Athenian Land Frontier 404-322 B.C.* Leiden.
- 1989. *Mass and Elite in Democratic Athens*. Princeton.
- Organization for Economic Cooperation and Development (OECD). 1989. *Economies in Transition: Structural Adjustments in OECD Countries*. Paris.
- Osborne, M. 1981. "Entertainment in the Prytaneion at Athens." *Zeitschrift für Papyrologie und Epigraphik*: 153-70.
- Osborne, R. 1991. "The Potential Mobility of Human Populations." *Oxford Journal of Archaeology* 10(2): 231-50.
- Paoli, U. [1930] 1974. *Studi di diritto attico*. Milan.
- Rhodes, P. 1982. "Problems in Athenian Eispheora and Liturgies." *American Journal of Ancient History* 7: 1-19.
- Rougé, J. 1966. *Recherches sur l'organisation du commerce maritime en Méditerranée sous l'Empire Romain*. Paris.
- Ruschenbusch, E. 1978. "Die athenischen Symmorien des 4. Jh. v.Chr." *Zeitschrift für Papyrologie und Epigraphik* 31: 275-84.
- 1985. "Ein Beitrag zur Leiturgie und zur Eispheora." *Zeitschrift für Papyrologie und Epigraphik* 59: 237-40.
- Salmon, J. 1999. "The Economic Role of the Greek City." *Greece and Rome* 46 (2nd series): 147-167.
- Schaps, D. 1998. Review of D. Tandy: *Warriors into Traders: The Power of the Market in Early Greece*. In *Bryn Mawr Classical Review* (owner_bmc_r1@brynmawr.edu) 98.Nov.1: 1-13.
- (forthcoming). "Monetization: Limits and Illusions." Chapter 13 (p. 2) of *The Invention of Coinage and the Monetization of Ancient Greece*.
- Shipton, K. 1997. "The Private Banks in Fourth-Century B.C. Athens: A Reappraisal." *Classical Quarterly* 47: 396-422.
- 2000. *Leasing and Lending: The Cash Economy in Fourth-Century BC Athens*. London.
- Ste. Croix, G. de. 1953. "Demosthenes' Timema and the Athenian Eispheora in the Fourth Century." *Classica et Mediaevalia* 14: 30-70.
- 1974. "Ancient Greek and Roman maritime loans." In *Debts, Credits, Finance and Profits* [Essays in Honour of W.T. Baxter], edited by H. Edey and B. Yamey, pp. 41-59. London.
- Soto, H. de. 2000. *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. London.
- Steinmo, S. 1993. *Taxation and Democracy*. New Haven.

- Stroud, R. 1998. *The Athenian Grain-Tax Law of 374/3 B.C.* *Hesperia* supp. 29. Princeton.
- Thomsen, R. 1964. *Eisphora*. Copenhagen.
- Thompson, W. 1979. "A View of Athenian Banking." *Museum Helveticum* 36: 224-41.
- Thür, G. 1989. "Wo wohnen did Metöken?" In *Demokratie und Architektur*, edited by W. Schuller, W. Hoepfner and E. L. Schwandner, pp. 117-21. Konstanzer.
- Todd, S. 1990. "The Purpose of Evidence in Athenian Courts." In *Nomos: Essays in Athenian Law, Politics and Society*, edited by P. Cartledge, P. Millett and S. Todd, pp. 19-39. Cambridge.
- Trevett, J. 1992. *Apollodoros the Son of Pasion*. Oxford.
- Vernant, J, and P. Vidal-Naquet. 1969. *Mythe et tragédie*. Paris. (Translated by Janet Lloyd as *Tragedy and Myth in Ancient Greece*. [Brighton, 1981]).
- Wallace, R. 1989. "The Athenian *Proeispherontes*." *Hesperia* 58: 473-85.
- Whitby, M. 1998. "Athenian Grain trade in the Fourth Century B.C." In *Trade, Traders and the Ancient City*, edited by H. Parkins and C. Smith, pp. 102-28. London.
- Whitehead, D. 1977. *The Ideology of the Athenian Metic*. Cambridge.
- 1986a. *The Demes of Attica 508/7-ca. 250 B.C.: A Political and Social Study*. Princeton.
- 1986b. "Festival Liturgies in Thorikos." *Zeitschrift für Papyrologie und Epigraphik* 62: 213-20.
- Williamson, O. 1985a. *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York.
- 1985b. "Reflection on the New Institutional Economics." *Journal of Theoretical and Institutional Economics* 141 (No. 1): 187-95.
- Wilson, P. 2000. *The Athenian Institution of the Khoregia: The Chorus, The City and the Stage*. Cambridge.
- Wyse, W. [1904] 1967. *The Speeches of Isaeus*. Cambridge.

