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Institutions, taxation, and market relationships in ancient Athens

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Abstract

This paper explores the mutual influence between the institutional development in Athens in the archaic and classical periods and the contemporary changes in economic life. This enhances our understanding of the causes and consequences of institutional change. It is also worth exploring in view of the suggested connections between economic development, markets and democracy. Between 600 and 322 B.C., Athenian society underwent significant institutional change. Rule by a birth aristocracy gave way to (changing) democratic institutions. Political pay was introduced for magistrates, jurors, and assemblymen. Legislation and execution was transferred to the Assembly and to the courts. The nature and extent of taxation changed. In the same period, economic life changed both qualitatively and quantitatively. Trade and specialisation increased, coinage was introduced and self-sufficient farming gradually gave way to reliance on imports and on the market for necessary goods. These changes not only influenced institutional change, they also affected people's perception of the world. The influence of institutions on the presence and nature of economic transactions is obvious. The influence on institutional change from changes in economic behaviours and outlook seems however potentially equally important.

Keywords: institutional change, democracy, market, Athens, antiquity

JEL classification: D72, H30, N43, O17, P16

Institutions and market relationships in ancient Athens

1. Introduction

"The social sciences are noteworthy by their relative absence" in the study of the ancient world, and yet "the archeological and textual record provides an astonishing degree of information about these societies" (Morris & Weingast, 2004, p. 702). In fact, the ancient world provides a very promising ground for analyses using the tools of the New Institutional Economics (op. cit.; Morris 2002; Morris & Manning, 2005).[1] Such studies can enhance our understanding of the ancient world and at the same time provide lessons for contemporary societies. This paper applies an approach from New Institutional Economics to institutional change in ancient Athens, with a particular focus on the mutual relationship between the changes in the economic environment and the rules of the game in Athenian society. Its usefulness can also be seen against the background that, according to Morris & Manning (2005), one of the limitations of current research (within the humanities) on the ancient societies is that it tends to produce "economic history without economics" (p. 3).

In discussions of the development of democracy, it is increasingly emphasised that there is no mono-causal relationship between economic development and institutional change. Rather there is a complex interplay between these two processes, where different societies may end up on different paths due to particular early circumstances.[2] As formulated by Greif (2005, p. 727), "…neither the assertion that liberal political institutions lead to markets nor that markets lead to liberal governance are supported by theory or history. Markets and political institutions co-evolve through a dynamic inter-play between contract-enforcement and coercion-constraining institutions."

Similarly, North (1981) emphasises that the formal rules in a society are often constructed to favour the interest of the ruler, but also that the ruler's interest will vary according to circumstances such as relative prices and transaction costs (which are in turn influenced by the institutional set-up). The formal rules may promote efficient economic behaviour, but that is by no means necessarily the case, as the ruler's best interest also depends on how he can extract resources and reward his followers.

This paper explores the institutional and economic development in ancient Athens, from around 600 B.C. and into the fourth century B.C. It thus begins in the archaic period with Athens

[1] For some attempts to work on the intersection between New Institutional Economics and the study of the ancient world, see, for example, Bang (2006), Lyttkens (1994, 1997, 2006), Fleck & Hanssen (2006), Manning (2004), Morris (2004), Scheidel (2004).

[2] Acemoglu et al. (2005), Acemoglu & Robinson (2006), Aoki (2001), Greif (2005), North (1990, 2005).

under aristocratic rule and ends with the termination of democracy in Athens in 322 B.C. In this period, it will be argued, significant interaction took place between the emerging market relationships and the formal and informal rules in society. To explore this process is interesting in its own right, not least in view of the renown of the male Athenian democracy, but also as there is much left to explore in the relationship between political institutional change and economic development. The analysis also illustrates the importance of the individual's beliefs about the way the world works (North, 1990, 2005).

Morris & Weingast (2004) single out precisely the development of democracy in Athens as an interesting point of intersection between New Institutional Economics and the study of the ancient world. There is no lack of material: "The Greek *poleis* in general were characterized by the abundance of their political institutions, and democratic Athens was notoriously in the lead; in fact, never before or since has such an elaborate network of institutions been created and developed in order to run a quite small and fairly simple society" (Hansen 1991, p. 319).

It is furthermore worth emphasising that the focus will be on the structural determinants of the institutional development. Morris (2002) and Morris & Manning (2005) have provided a useful distinction between humanistic and social-scientific thought, where "the former are tools for understanding the world, while the latter are tools for explaining the world […] [for the humanities] God is in the details [….] social sciences, on the other hand, cut through the messy details that make up real life to find underlying general structures and principles" (Morris, 2002, p. 8). This study falls in the social-scientific tradition (economic to be more precise[3]), and so it will necessarily ignore a wealth of seemingly important details in order focus on the structure of the processes of institutional and economic change.

Hence this paper provides a structural economic analysis of the determinants of institutional and economic change in ancient Athens, with a particular focus on the inter-relationship between these two processes.[4] As indicated above, this is a practically unexplored field, but the approach of Fleck & Hanssen (2006) in their analysis of the interaction between

[3] The use of economic analysis in this context is not uncontroversial. It has been criticised primarily on the grounds that economic life was "embedded" so that market forces played no independent part (Finley, 1999 [1973]; Morris, 1994), i.e., the substantivist position. The view of the present author is that this is a matter of degrees. On the one hand, much economic behaviour in the modern world is also "embedded", so the ancient world is perhaps not as different as sometimes suggested (Bang, 2005). On the other hand, embededness still leaves considerable scope for analyses based in New Institutional Economics, with its emphasis on social norms, on the interaction between economic and social domains and on people's beliefs about the functioning of the world (Aoki, 2001; Greif, 1994a; North, 1990) Furthermore, I will argue that there was a gradual change in economic behaviour in ancient Greece, and that precisely this change had important effects on Athenian institutions and institutional change (section 3). It is also worth noting that Murray (1990, 1996) argues that institutional change in ancient Greece, including the archaic period, displays a high level of rationality, based on recognition of the reasons for change and the consequences of institutional reform.

[4] This does not claim to be a fully comprehensive analysis. Some interesting structural changes will not be considered, such as the changing nature of slavery.

taxation, production possibilities and political change in ancient Greece is similar in spirit (but with a partly different focus and with diverging conclusions, cf. below).[5]

The rest of the paper is organised as follows. Section 2 focuses on the changes in political institutions and applies an economic approach to political transitions. After a presentation of the historical background (2.1), the political development (2.2), and the analytical framework (2.3), the analysis proceeds in three chronologically ordered sections, dealing with the defusing of a revolutionary situation under Solon in 594 B.C. (2.4), the existence and fall of tyrants in Athens in the second half of the sixth century (2.5), and the development and consolidation of democracy in the fifth and early fourth centuries (2.6). The following section (3.1) presents a brief sketch of the changes in economic life in Athens 600-300 B.C., whereupon the effects of these changes on political behaviour and tax evasion are discussed (3.2). Section 4 offers some further reflections on Athenian taxation and its relationship with the political and economic development. Section 5 provides some concluding remarks.

2. Political transitions as institutional change in Athens: From oligarchy to democracy and the stabilisation of democracy

2.1 Background – ancient Greece before 600 B.C. [6]

Readers familiar with ancient Greek history can skip this and the next section, and go directly to sections 2.3-2.6.

This section provides a brief background to the crisis in Athens around 600 B.C. (henceforth all dates are B.C. unless otherwise stated). The recovery from the collapse of the Mycenaean society was under way at least by 900. During the following centuries, life centred on the households of local chieftains (*basileis*). The common people made contributions to the *basileus*' wealth. In return, he provided protection and administration of justice. From these beginnings, the city-state (*polis*) gradually emerged as a community of citizens, as a political, geographical, religious unit and judicial unit, with an assembly, council, elected magistrates and written laws.

The population increased from the tenth century onwards. There was a gradual expansion and diversification of economic activity, and a significant increase in real per capita incomes (cf. section 3.1). From the middle of the seventh century and into the fourth, the hoplite (heavy

[5] Other kinds of structural approaches include, for example, Morris (2000, 2004) where it is argued that an important (structural) element behind the development of democracy in the Greek city-states was a growing ideology of male egalitarianism that weakened the position of the traditional aristocratic oligarchies.

infantryman) was the decisive factor on the battlefield. This meant that the group of ordinary well-to-do farmers – who could afford the equipment – gained in military importance.

Around 700, the informal governing system of the *basileis* was replaced in many Greek communities by a formal system of power sharing among a birth aristocracy. The different functions and powers of the *basileis* were largely shared out among a set of magistrates, non-hereditary, with a limited and short term of office.[7] An assembly and a council existed before these changes, but it is probable that the council now became more formalised. In the seventh century the rise of tyrants – the situation where a single member of the elite took control over a *polis* – emerged as a new political phenomenon. Roughly at the same time came the introduction of written law.

In addition to the eternal rivalry within the elite, tensions were increasing between the elite and the population at large. Around 700, Hesiod (*Works and Days*, 30-39) complained that the aristocracy gave crooked sentences and violated justice for the lure of gain. Several factors contributed to this. One factor was population growth and an increasing scarcity of land. Another factor was the gradual formation of boundaries, because this significantly reduced the possibilities for the ordinary farmer to avoid exploitation by moving to another community (Lyttkens, 2006). Furthermore, the formalisation of political institutions probably facilitated exploitation by increasing the power of the upper class vis-à-vis the common people (Donlan, 1997) – the cost of non-compliance increased, compared to what it had been under the relatively loose authority exercised by the early *basileis*, largely based on custom. The same would have been the effect of the formalisation of laws. A final source of tension in the community was that individuals outside the nobility also had been able to enrich themselves in the new social and economic environment (cf. section 3.1), but by definition they were excluded from political power and the interpretation of the law.

In summary, at the same time as military power in the incipient *poleis* gradually shifted from the elite to the ordinary well-to-do citizens, tension mounted between the elite and the rest of the population.

The sixth century witnessed many instances of continued political turmoil. The material is often very scanty,[8] but it appears that new tyrants appeared, usually by overthrowing the rule of

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[6] On this background, cf., e.g., Osborne (1996a).

[7] For example, in Athens the most powerful magistrates were the nine archons, and the Athenians believed that the archonship went back to 683. Cf. Hansen (1991), p. 28.

[8] We sometimes have to rely on Hellenistic or later traditions. The often informative writings of the fourth century are coloured by the political debate of that century. Sometimes we even have reason to doubt the accuracy of Aristotle on Athenian matters (Hansen 1991, pp. 49-52; Ste. Croix 2004, p. 104). There is also the general problem to determine what a term like, e.g., "the people" (*demos*) means in a particular context. In the fourth century, for example, it could mean the whole population, the poor masses, or the "more moderate" party (Robinson, 1997, p. 80, n. 59).

aristocratic oligarchies, and sometimes tyrants were expelled. In some instances it is reported that this ended with the *demos* taking control (possibly under aristocratic leadership). Similarly, sometimes rule by the *demos* was overthrown by aristocratic groups. Constitutional change often occurred in connection with severe military setbacks (Robinson, 1997, Ch. 3).

2.2 Institutional development in Athens 600-322

Once again, readers familiar with Athenian history can move on directly to section 2.3.

In the seventh century, Athens was ruled by a birth aristocracy. Aristocratic rule was formally exercised through two institutions. It was an aristocratic prerogative to hold the offices of the state, of which the most important were the nine elected archons.[9] Ex-archons had a seat in the Council of the Areopagos, where membership was for life. The powers of this Council were probably great, but very little is known about the details.

In the beginning of the sixth century, social tensions in Athens led to what is often described as a revolutionary situation. It is generally presumed that this tension was the result of dissatisfaction among the rich non-aristocrats, who were excluded from the elite, and among the ordinary farmers, who were increasingly being exploited by the aristocracy. According to Aristotle (*The Athenian Constitution* V.1-2), "the people rose against the notables [and] the party struggle [was] violent." As a consequence, the aristocrat Solon was appointed archon and mediator for the year 594/3, apparently with full powers to reform the state and its laws. Solon is traditionally credited with economic, social and constitutional reforms.[10] On the economic side, Solon is credited with the cancellation of debts, abolishment of slavery for debt, freeing the land, and freeing the *hektemoroi* from their obligations. The *hektemoroi* were bound to pay over a sixth of their produce to another.

On the political side, Solon substituted wealth for birth as qualification for office. He divided the citizens into four classes defined by income in kind. Henceforth the archonship was open to all citizens in the highest income class (or the two highest classes). The Areopagos retained its role. The Assembly of all citizens probably existed before Solon. However, he is reported to have instituted a new Council of 400, were issues had to be discussed before they were taken up in the Assembly.[11] Membership was probably restricted to the two highest income classes. Finally, he instituted a court of law, which may have been the whole Assembly sitting in

[9] The singular "archon" commonly designates the highest official (after whom the year was named, the eponymous archon).

[10] No definite conclusion will ever be reached as to the precise nature of Solon's reforms. On these reforms, cf., e.g., Hansen (1991), Lyttkens (2004), Morris (2002), Osborne (1996a).

[11] Hansen (1991), pp. 30-31, however, argues that it is impossible to tell whether this Council really existed.

judicial capacity. The citizens of the lowest income class (the *thetes*) were admitted only to the Assembly and the court.

Elite factionalism did not end with Solon, however. There were problems with the election of archons several times in the following decades. After two unsuccessful attempts (the first in 561) Peisistratos established a tyranny in Athens in 546. His dynasty then ruled Athens for 36 years. Peisistratos arranged so that the poor could borrow from the state and thus became less financially dependent on the elite. He instituted a system of travelling judges, which also curtailed their dependence on the local nobility.

Peisistratos introduced a five per cent tax on produce. It appears that Peisistratos used the tax less for personal wealth than to secure his position. He paid his bodyguard, gave loans to farmers, etc. Like other tyrants of his age, Peisistratos spent on public goods. He adorned the city and fostered public cults that gave him status but also served to strengthen his rule. It decreased the power of the old nobility, which had a considerable hold over traditional religion.

Peisistratos died in 527 and was succeeded by his sons Hippias and Hipparchos. Aristocratic opposition gradually increased during the brothers' reign and in 514 a conspiracy ended with the murder of Hipparchos. In 510 Hippias was overthrown by the Spartans[12] with the help and at the instigation of Athenian exiles under the leadership of the famous Alkmaionid family.

After the overthrow of the tyranny an intense rivalry ensued between Kleisthenes - the leader of the Alkmaionids – and another noble named Isagoras. Kleisthenes lost the power struggle with Isagoras, who was elected archon for the year 508/7. Kleisthenes then reputedly "... took the unprecedented step of seeking a power base in the common people" (Ostwald, 1988, p. 305). His position rapidly became so strong that Isagoras decided to call in military help from outside – the Spartans. The Council resisted and was joined by the population at large. Isagoras and the Spartans were defeated.

Kleisthenes now reformed the constitution. Previously the citizens had been divided into four tribes that were dominated by the old distinguished families, each in its own locality. Kleisthenes created a new political substratum. Attica was divided into 139 *demes*, and the *demes* were distributed among ten new artificial tribes. The new division was used to create a new Council with 500 members (the Solonian Council of 400 was abolished). We do not know if Kleisthenes made any changes in the criterion for eligibility or instituted any other regulations

[12] The Spartans' motive for this action is an obscure issue. They had enjoyed guest-friendship with the Peisistratids. Possibly the Spartans hoped to incorporate Athens among their network of allies (Ober, 1996, p. 36; Osborne, 1996a, p. 294); or possibly the Spartans were afraid of an Athens friendly with the Persians, since Hippias had made overtures to the tyrant of Lampsacus who had Persian connections (Lewis, 1988).

concerning the Council. Kleisthenes probably did not make any significant changes with respect to the archonships, the Assembly or the popular court.[13]

Between the year of Marathon and the outbreak of the Peloponnesian War, the constitution of Kleisthenes was gradually transformed into the fully-developed Athenian democracy. When the transition was complete, archons, councillors and other magistrates were all chosen by lot for one year. Jurors were selected by lot for one day from a panel of 6,000, which was selected by lot for one year. The only elected magistrates of importance were the ten generals. Citizens of all classes could speak in the Assembly and serve as jurors in the popular courts. There were now many more offices of the state, partly as a result of the administration of the Athenian Empire (cf. below). Theoretically the lowest property class (the *thetes*) were still excluded from the Council and offices, but this rule probably ceased to function already in the fifth century. Each man could only serve twice in his lifetime on the Council (once in other offices). The Areopagos had lost almost all of its judicial powers. Political pay had been introduced so that citizens were paid for serving as jurors, on the Council and in other offices.

Few of these changes can be dated with any certainty. Nor do we usually know much about the specific circumstances. Lot for the selection of archons was introduced in 487.[14] Several of the other reforms occurred around 460-50, in the wave of reforms associated with Ephialtes and Perikles. The council of the Areopagos was deprived of practically all of its powers of legislation and jurisdiction in 462.[15] These powers were transferred to the Assembly and popular courts. In 458/7 the archonship was opened to the third property class (the *zeugitai*). Around 450, Perikles introduced public pay for jurors, magistrates, and council members, thus increasing the opportunities for the less affluent to take part in the running of the state. These democratising changes largely coincided in time with the so called Athenian Empire, originally formed as the Delian league in 478/7 as a coalition against the Persians (cf. section 2.6).

The Athenian democracy showed remarkable stability. It survived – with the exception of two brief interludes – the calamities of the Peloponnesian War (431-404), and only ended in 322 in the aftermath of the conquests of Alexander the Great.

In 415, the Athenians sent a large expedition against Syracuse; the venture ended in catastrophe. At an irregular meeting in 411 (when many of the poor were absent with the fleet), the Assembly voted to abolish the democracy and put the government in the hands of a Council of Four Hundred. Oligarchy lasted only a couple of months and democracy was restored in 410.

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[13] Kleisthenes gave the Assembly right to hear political trials, so that this was no longer the exclusive right of the Areopagos (Hansen, 1991, p. 37).
[14] Cf. Lyttkens (2008) on the introduction of lottery.
[15] As often noted, this happened when Kimon and 4,000 hoplites were away in the Peloponnese, so there was more scope for radical policies.

Subsequently, the Athenians lost the Peloponnesian War. In 404, the Spartans imposed an oligarchic regime on the Athenians ("The Thirty Tyrants"). In less than a year the oligarchy was violently overthrown and democracy was restored in 403.

The Athenians now proceeded to codify and revise their laws in 403-399. In connection with this, the Assembly was deprived of a number of its powers (Hansen, 1991).[16] For example, the right to pass laws (*nomoi*), i.e. general and permanent rules was transferred to boards of *nomothetai*, appointed (probably) by lot for one day from the 6,000 jurors that were chosen by lot for one year. The authority of the council of the Areopagos was gradually extended from 403 and through the fourth century. For example, in 403/2, the Assembly decreed that the Areopagos was to supervise the administration of the laws by the magistrates.[17] Furthermore, a rule laid down in 403/2 that in the future magistrates must use only the written law.[18] Around 355 the Assembly was deprived of its jurisdiction in major political trials.[19]

With the restoration of democracy in 403/2, payment of jurors (3 obols) and councillors (5-6 obols towards the end of the fourth century) was reinstated.[20] Payment of magistrates, however, was not reintroduced. Instead Assembly pay was introduced and raised in the decade following the restoration of democracy (1-3 obols).

2.3 Analytical framework

Ancient Greece witnessed frequent political transition in the archaic and classical periods, from oligarchy to democracy or tyranny and back again. These political transitions, as well as several other aspects of institutional change, are intrinsically linked to the issue of credible commitment (North & Weingast, 1989), and to the predatory model of the state as an agency of a group or class with the function to extract income from the rest of the constituents (North, 1981, 2005).

In their stimulating book on the economic origins of democracy, Acemoglu & Robinson (2006) argue that elites, when threatened by revolution from below, will sometimes choose to democratise, even though economic concessions may seem preferable to the elite. The reason is that promises of economic concessions are not credible into the future unless there is a shift of (de jure) political power towards the poor majority, because the revolutionary situation will eventually abate, and when it does, there is nothing to stop the elite from recovering any

[16] Cf. also Rihll (1995). For a contrary view, cf. Millet (2000).
[17] Cf. Hansen (1991), Ch. 12.
[18] Hansen (1991), p. 311.
[19] Hansen (1991), pp. 158-59. Before this change the Assembly could chose whether the case be heard directly by the people in the Assembly or referred to a court.
[20]. Cf. Hansen (1991), pp. 188 and 254, Aristotle, The Athenian Constitution LXII.2. According to the Attic standard 1 talent = 60 minae, 1 mina = 100 drachmas, 1 drachma = 6 obols.

economic concessions if they retain the same political power as before.[21] "In some situations […] revolutions are easier and less costly to carry out […] typically [in] times of crises – for example, harvest failures, economic depressions […] or even wars. *Such crises* […] *are intrinsically transitory* and lead to short term fluctuations in power based on the violence potential of different groups" (Acemoglu & Robinson, 2006, pp. 31-32; my italics). It is possible to stop a revolution, because a revolution is costly and much of the wealth of a society may be destroyed. Similarly, with a democratic constitution, where the poor majority rules, the majority may seek to reduce the threat of an elite coup by shifting some *de jure* political power to the elite, as a guarantee (credible commitment) that exploitation of the rich through taxation etc. will not become excessive. The presence of a middle class, finally, may act as a buffer. The middle class "will typically support policies much closer to those that the elite prefer […] making democratization more attractive for the elites than repression and changing policy enough that the citizens are content not to revolt" (op. cit., p. 39).

For what follows, it is important to note that the approach of Acemoglu & Robinson (2006) is "economic", which means that it is assumed that "individuals *do* have well-defined preferences that they understand. They evaluate various different options, including democracy vs. nondemocracy, according to their assessment of their (economic and social) consequences" (p. 19). As I will argue below, this assumption is likely to become more relevant for behaviour in ancient Athens as we move forward in time.

In the same vein, Greif (2005) argues that contract-enforcing institutions, i.e., market enhancing institutions, have a tendency to reveal the property of those who utilise them, even if they are spontaneously developed. Therefore in order for such institutions to have beneficial effects on trade and growth, it is necessary that the state can credibly commit not to use its powers (political, violence, etc.) and the information revealed in order to confiscate through taxation or other measures the property revealed by using a contract-enforcing institution. Similarly, public contract-enforcing institutions depend on credible commitments not to transgress property rights if they are to have beneficial effects on the development of market relationships. In other words, there have to be coercion-constraining institutions as well. This can also induce the ruler to shift some coercive power (e.g. political power) to the tax-payers in general and the commercial sector in particular. For these reasons, "coercion-constraining

[21] This assumes that repression – an obvious alternative for the elite – is viewed as being too costly (Acemoglu & Robinson, 2006).

institutions conducive to the growth of the market also likely lead to the endogenous emergence of political institutions associated with liberal societies" (Greif 2005 p. 728).[22]

Greif also points out that "a ruler's costs and benefits from abusing rights depends on administrative capacity and who controls the administration […] in particular, if the state's administration is controlled by the asset holders, abusing their rights can undermine, rather than foster a ruler's welfare" (p. 748). The administrative control by asset holders can provide the expectation that a ruler will not abuse rights, and hence provide conditions favourable to the growth of the market.

Thus there are two fundamental problems that impede the establishment of institutions that foster economic growth. First, the ruler may have no incentive to introduce efficient property rights and other institutions because it may not be in his best interest to do so; it depends e.g. both on the cost of extracting resources from the economic agents and the size of the extractable surplus (North, 1981; Olson, 2000). Secondly, even if what could be efficient institutions are in place, it does not necessarily lead to an efficient outcome, it does not automatically foster efficient economic activity in society. The reason is that "a state strong enough to protect property rights is also strong enough to abuse them" (Greif, 2005, p. 747). "There must be institutions that limit the government from preying on the market" (North, 2005, p. 85).

The framework provided by the studies of Acemoglu & Robinson (2006) and Greif (2005) appears, *mutatis mutandis*, highly useful for an analysis of the political and economic development of ancient Athens.[23]

In a recent paper, Fleck and Hanssen (2006) argue that an elite may *voluntarily* introduce democracy as a way to credibly commit not to confiscate the increase in income that would be generated if ordinary farmers made long-term investments in their land. The elite benefits from democracy because the revenues from taxation of the farmers – now determined by the farmers themselves – could be higher than under aristocratic (oligarchic) rule. Fleck and Hanssen show that the extent to which democracy emerged in a number of ancient Greek societies is consistent with their theoretical predictions.

However, this is not the whole story about credible commitments and the emergence of democracy in ancient Greece. Firstly, if the ordinary farmers are given the right to decide on taxation, *why do they tax themselves and not the aristocracy?* In Athens, this must increasingly have

[22] Aoki (2001) suggests that a positive relationship between a market economy and democracy may exist because the former makes it difficult for a ruler to identify parties to collude with and to exploit respectively.
[23] Acemoglu & Robinson (2006) note that the mechanism they suggest probably better describes the development of male suffrage than the extension of suffrage to women (p. 18) , which is unproblematic in this contest given the exclusively male character of Athenian democracy.

become an issue in the first half of the fifth century, if not before (cf. below, section 4). Consequently, a major issue for both the introduction and the stability of democracy was the ability of the poor majority to credibly commit not to tax the rich excessively. Secondly, the ancient evidence indicates that neither of the first two sets of "democratic" reforms in Athens was voluntary. Thirdly, we need to accommodate the fact that the development sometimes took a turn in a non-democratic direction in Athens (such as after the Peloponnesian War). Such issues are incorporated in the extended theoretical framework of Acemoglu and Robinson (2006), which therefore provides a better understanding of the emergence of democracy in Athens, which is the one case in ancient Greece where we can follow events more closely.[24]

2.4 Explaining Solon

As mentioned above, the city-states of Greece witnessed many violent shifts of political regime in the seventh and sixth centuries, in particular, it appears, in connection with military crises (which of course easily turned into economic crises). The Athenian case fits neatly into the model of Acemoglu and Robinson's (2006), as it primarily appears to have been an economic crisis.[25] The situation that faced Solon is a clear case of a revolutionary threat like the one envisaged in their model. Those outside the aristocracy were so dissatisfied with their situation that a violent seizure of power was imminent.

Several factors may have contributed to increasing tensions between the rich elite and the rest of the population (cf. above). Morris (2002) suggests that population growth had reduced the production per capita, making dependent farmers increasingly worse off, and increasing the amounts the rich had to invest in repression to maintain the system. The divide between rich and poor may have been exceptionally large in Athens: the Athenian elite continued to focus aristocratic displays of wealth on burials rather than redirecting it towards votives at temples, which Morris (2000, pp. 288, 305) interprets as a sign of a refusal to adapt to a middling ideology which was gaining in importance in the Greek world.. This could be important because if there is very little inequality, democracy is potentially less likely to develop as revolution and social unrest is not sufficiently attractive to the poor majority (Acemoglu & Robinson, 2006, p. 37). In addition, it is generally presumed (not least on the basis of the subsequent reforms) that there were individuals who were relatively wealthy but who were excluded from political and judicial power, as not belonging to the old aristocracy.

[24] This is argued in more detail in Lyttkens (2007).

[25] However the literary sources also tell us that Athens suffered military defeats in the late seventh century against Megara, Mytilene and perhaps Aegina (Morris, 2002).

The situation provided the basis for a solution based on two kinds of measures. On the one hand, Solon co-opted the rich non-elite by substituting wealth for noble birth as a criterion for eligibility.[26] One the other hand, Solon enacted economic concessions to the population at large, though it is very difficult to know exactly what took place.[27] It is highly debatable whether the latter represented a credible commitment to ease the economic situation of the ordinary population in the long run, but given the fact that the most likely leaders of a revolt were given (some) political power, so that the collective action problem of the ordinary farmers were exacerbated, these measures were apparently sufficient to defuse the situation in the short and medium run. As noted by Acemoglu & Robinson (2006, p. 39) "it may be sufficient for the elite to co-opt the middle class rather than concede a comprehensive democracy."

It is particularly noteworthy that political power was given to those who were rich, but outside the traditional birth aristocracy. This essentially meant that there was no threat that this small step towards a more democratic regime would lead to the poor majority taxing the rich. If a nondemocratic regime or elite can design or manipulate the institutions of democracy so as to guarantee that radical majoritarian policies will not be adopted, then democracy becomes less threatening (Acemoglu & Robinson, 2006, p. 34).

2.5 Explaining the Peisistratid dynasty

In the middle of the sixth century Peisistratos established himself as tyrant in Athens. I would argue that his rule and that of his sons depended on striking a delicate balance in providing benefits and using repression against the different groups in society.[28] At this point in time, we can think of the population in Athens as consisting of two groups – the rich elite and the less affluent majority. There were three alternatives: the tyranny of Peisistratos, return to traditional elite rule, and move towards democracy (or, to be more precise, the *demos* taking control). Both the elite and the population majority preferred another alternative to tyranny, but both preferred tyranny to the best alternative for the other party. Peisistratos had independent military power (his bodyguards). However, his powers of coercion were arguably not sufficient to dominate the rest of the population if they should join in coalition. Probably his military power was not even sufficient to defeat any one of the other two parties in isolation. Instead, his position relied upon the fact that each group preferred the status quo (tyranny) to the situation that the other group

[26] The Solonian measures, however, probably gave away less political power than sometimes suggested. Cf. Lyttkens (2004).
[27] Cf., e.g., Hansen (1991), Lyttkens (2004), Manville 1997 [1990], Morris (2002).
[28] Osborne (1996a) paints a similar picture of a delicate balance, though not in the same theoretical framework. Since we focus on structural elements, we ignore the particular events that brought Peisistratos to power. On these details, cf., e.g., Andrewes (1982) Lyttkens (2004), Manville (1990).

preferred, and so could be expected to support the tyranny against a violent overtake by the other group.

At the same time, the tyrant could not use a coalition with one party to eliminate the powers of the other party, because the winning party could not credibly commit to let Peisistratos stay in power. With the other party eliminated, the independent power of Peisistratos (or his sons) would not stop the elite or the *demos* from taking over.[29]

The evidence concerning the rule of Peisistratos and his sons shows how the balance was struck. Peisistratos provided important benefits to the ordinary farmers by his system of state loans and travelling judges. This probably were important benefits, since it decreased the ordinary farmer's dependence on his local landlord. (The changes enacted by Solon had not changed the incentives nor possibilities for the members of the elite to exploit the poor[30] and the poor as a group had not had their political power increased.[31]) Against this one must set his 5% tax. The latter may, however, have represented a *reduction* in the level of taxation, in the sense that the ordinary farmer perhaps no longer had to pay tribute and implicit interest on loans to his local landlord, as they had done under traditional elite rule (Harris, 1997).

The Peisistratids necessarily were unpopular among the other members of the elite. Presumably they also had to pay the 5% tax. However, the Peisistratids also did their best to keep on friendly terms with at least some of the other aristocratic families (even to the extent of allowing an Alkmaionid to be archon in 525/4).[32] It seems probable that they continued the aristocratic tradition of gift-giving to their fellow aristocrats. Given the cost associated with a violent uprising (destruction of human and physical capital etc.), and as long as the population at large was sufficiently favourably disposed towards the tyrants, violent internal conflicts did not materialise.

An important consideration for the Peisistratids – as for any ruler (North, 1981) – was their ability to reward those who supported their regime. Their ability to o this depended on the other demands on their budget as well as on their revenues. Under Peisistratos, tax revenues likely increased with the increase in trade[33] and real incomes (cf. below). The increase in tax revenues also made it more attractive to challenge their rule, in particular if something reduced the number

[29] Hence I suggest a parallel here with the situation of the Podestà in medieval Genoa, cf. Greif (1994b).
[30] The poor could no longer be enslaved (and sold abroad) as a result of default on a loan, but this did not mean that their financial troubles were over. They may in fact have been exacerbated (Lyttkens, 2004).
[31] Compare the situation in England after the Glorious Revolution when "once the parliament gained supremacy, it was not in the business of protecting property rights per-se. Its policy reflected the interests of those who controlled it" (Greif, 2005, p. 775). As noted by Greif (p. 761), it could even be the case that "representative bodies also facilitate the abuse of property rights […] for those who are not represented."
[32] Similarly, Polycrates, the well-known tyrant of Samos, cultivated members of the elite (Osborne, 1996a, p. 276).

of followers that they could credibly commit to reward. As illustrated in Greif (1994b), a fall in revenue may lead to a challenge by groups not in office.

Of unknown but potentially significant importance on the revenue side were the personal assets of Peisistratos and his sons. These may have been considerable, not lest given the fact that they included assets in the Mount Pangaeus region, well-known for its gold mines.[34] When the Peisistratid Hippias eventually was overthrown, it is natural to connect this to a reduction in the amount he could invest in his followers. At that time, he was squeezed from both the expenditure and the revenue side.

On one hand, it seems very likely that (perceived) expected military expenditures increased. Peisistratos himself largely managed to rule without external conflicts (Andrewes, 1982, p. 409). However, the increasing threat from the Persians after the fall of Lydia in 546 implied that, in the long run, tribute would have to be paid or military expenditures increased. For example, the trireme, an expensive and specialised warship, had made its appearance in Greek waters by 600, and it seems that it was increasingly adopted by the Greek city-states in the 530s.[35] Not surprisingly, we see Hippias in his final years in power moving over towards the Persian camp (Lewis, 1988). To this we may add that Thukydides (VI.54.5) reports that the brothers conducted wars. According to Andreades (1979 [1933]), their expenditures were greater than their father's.[36]

Potentially equally important, as a result of Darius' campaign against the Scythians, the Persians took control of much of Thrace from the Bosporus to the Axius river (west of mount Pangaeus), probably in 512. Even if this – as it might have – excluded the immediate Mount Pangaeus area, revenue from that area had become a very uncertain source of income for Hippias at best.[37]

Hence on a structural level we find Hippias increasingly being unable to credibly commit to reward his followers to the same extent. Furthermore, the expected level of taxation increased, implying that the status quo situation deteriorated for the elite in general (as well as for the ordinary population). The deteriorating balance between revenues and expenditures can explain why the Alkmaionids managed to form a coalition that ended Hippias' rule. In particular, the loss

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[33] Assuming that trade was somehow taxed. This seems like a reasonable assumption. Taxation of trade is a ubiquitous phenomenon. It may have bee alt least part of the explanation for the interest the Peisistratids showed in the Thracian Chersonese.

[34] Aristotle, *The Athenian Constitution* 15.2, Herodotos I.64.1.

[35] Cf. Gabrielsen (1994), Haas (1985), Jordan (1975), pp. 7-9, and Snodgrass (1980), pp. 153-54.

[36] We do not know for certain, however, the respective roles of father and sons in several of the building projects in Athens attributed to the dynasty (Wycherley 1978, Chs. 5-6; Lewis 1988, pp. 294ff).

[37] Lewis (1988) p. 297. The Persian expansion would also have reduced any revenue from Sigeum, which may have been seen as a family possession (Andrewes, 1982, p. 404).

of Thracian possession may have been instrumental[38] – it certainly coincides nicely in time (probably in 512) with the first attempt by Spartans to oust him (probably in 511) and their eventual success (510). Even so, the overthrow was not the result of any mass uprising – it was accomplished by a coalition of the Alkmaionids and their immediate followers, together with "those of the Athenians who wanted to be free"[39] and the Spartans.

2.6 Why did Athens become and remain a democracy?

After the fall of the Peisistratids, it is a good guess that everybody expected a return to traditional elite competition for power. Tyranny was – after all - just an extreme outcome of the aristocratic competition for power (Osborne, 1996a, pp. 272-85) The Peisistratids had not changed the formal institutions. However, in the ensuing struggle, Kleisthenes inadvertently took a step that started a long-term process of democratising developments – he turned to the common people for support in the aristocratic struggle.

At this point event-history makes an inevitable appearance in this structural account. In the absence of Kleisthenes's particular action, Athens may well have remained an oligarchy, as the experiences of other Greek city-states show. Kleisthenes hit upon a solution to his short run problems that had tremendous long-run consequences, since it changed the nature of aristocratic competition for power (Lyttkens, 2004). It provides an example of how particular circumstances and "exogenous" factors can set a society on a path that ends in democracy.

We do not know if Kleisthenes broke any formal rules when he appealed to the people, but it appears that he certainly violated the unwritten informal rules of the aristocratic struggle for power. This amounts to an important institutional change. The elite now realised that they had a new weapon to use against each other: support from the common people. As the aristocracy adapted to the new situation, they would become more and more prone to advocate measures that would benefit the common people (Lyttkens, 2004). Hence the changes that followed were an effect of the struggle for power within the elite. "Rich and well-born Athenians competed vigorously, sometimes savagely, with each other for political influence, and they used appeals to the masses as ploys in their ongoing political struggles" (Ober, 1989, p. 84).

Gradually, as people became more aware of the demarcation between democratic and oligarchic measures, and with new measures increasing the influence of the less affluent majority, the process would become self-reinforcing. To be successful in the Assembly, a political leader

[38] This explanation for the fall of the dynasty is lacking, e.g., in the Cambridge Ancient History narrative of the final years of the reign of Hippias and Hipparchus, though the loss of revenue is recorded (Lewis, 1988, p. 297).
[39] Lewis (1988), p. 302. He notes that this phrase hardly suggests a mass rising.

would have to advocate measures that benefited the poor, he would have to be perceived as their "champion" in the largely oral political culture.

For the ordinary people the incentives to take part in the political process changed, because trade increased in general and reliance on imports in particular (cf. section 3.1. Reliance on market relationships (in particular "international" ones) rather than self-sufficiency implies that one is more affected by public policy measures, since these frequently affect the characteristics and even existence of these relationships. Furthermore, the Athenian Empire meant that a significant portion of the Athenian population had a direct interest in foreign policy, as it affected their livelihood (cf. below).

There are several structural reasons which explain how this process could continue without causing violent attempts by the elite to regain control of the Athenian state. It had to remain credible that the poor majority would not use its increased influence to tax the rich excessively.

Firstly, the existence of a military important "middle class" of well-to-do farmers made democracy more acceptable to the rich elite as it ensured that the poor would not conduct too radical taxation policies.[40]

Secondly, in 478/77 the Delian league (to become the Athenian Empire) was formed as a military coalition against the Persians. It increased the prosperity of Athenian citizens in several ways. The poor gained from employment in the fleet, not least because many states preferred to provide cash instead of ships. Not all of the revenue was needed for military preparations, in particular after the Peace of Callias in 450, and Athens benefited from, e.g., the building projects on the Acropolis and the employment it entailed. Additionally, for the rich the Empire brought overseas acquisitions, while the poor could move abroad as settlers in colonies (cleruchies). Trade increased, and the revenue from harbour dues increased as Athens benefited from its position.[41]

Thirdly, it has been argued that landholdings in Attica were relatively egalitarian by 500 (and that this may have been a consequence of Solon's reforms) and that the distribution of property remained relatively egalitarian throughout the classical period.[42] An egalitarian distribution of assets means that there is less of a threat of excessive taxation of the rich which increases the likelihood of a peaceful democratic development (Acemoglu & Robinson, 2006, pp. 35ff).

All these three factors implied that there was less of a threat that the poor would utilise their political power to increase taxation of the rich elite.[43]

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[40] The importance of the hoplites was emphasised by, e.g., the victories at Marathon (490) and Plataiai (479)
[41] That harbour dues were well-known in the fifth century is indicated by the fact that the Athenians after the Sicilian disaster tried to replace the tribute in the Empire with a 5% tax on imports and exports throughout the Empire.
[42] Morris (2002, 2004), Osborne (1996a), p. 225.
[43] One should add the revenue from the silver mines in Laureion (cf., e.g., Hornblower, 1983, p. 106)

Then obviously the Peloponnesian War changed the situation. The Athenians lost the war, and with the loss of the Empire, the poor could no longer credibly commit not to start taxing the rich at much higher rates than before. Military expenditures and other public expenditure would in the future have to be financed through internal revenues. Already during the war the internally financed military expenditures were increased.[44]

So it comes as no surprise that member of the elite staged a coup d'états in 411 (in the aftermath of the Sicilian disaster) and in 403 (after the end of the war) used the Spartans to set up an oligarchy. These attempts at elite take-over failed, but it is obvious that something had to give if future attempts by the rich to grab the power and put an end to democracy were to be avoided.

The solution, as described above in section 2.2, was to reduce the power of the Assembly and to increase the influence of those institutions where the elite had more influence, in particular the Areopagos. It is probably significant that Assembly pay was introduced *after* the reduction of the powers of the Assembly, while the payment of magistrates was discontinued, which meant that these positions would be in the hands of the affluent in society.[45] Hansen (1991) argues that "… it can hardly be denied that the Athenians in the fourth century were weary of extreme 'radical' principles and were trying to set in their place if not a 'moderate', then a 'modified', democracy, in which the courts and the *nomothetai* were the organ of control for keeping the Assembly and the political leaders in their place and for re-establishing respect for the laws."[46]

Hence the overall tendency of the reforms was to reduce the threat of excessively populist policy decisions. Clearly, the elite was given more influence over what happened in the Athenian democracy, thus making it more acceptable as envisaged by Acemoglu & Robinson (2006). In retrospect (and arguably also as perceived at the time), this was necessary for the continued existence of democratic rule.

[44] Hence a new tax, the *eisphora*, had been introduced, and before the war was over the so-called trierarchies had to be split between 2-3 persons, cf. below section 4.
[45] I would also argue that it is unlikely that the *working* poor could afford to sit as jurors. The expected pay for turning up would be around 1 obol (1/3 chance of being picked, remuneration 3 obols) whereas as the daily wage was somewhere between 1 and 2 drachmas (i.e. 6-12 obols).
[46] Hansen (1991), pp. 303-304. A similar view is found in many works, cf., e.g., Ober (1989), p. 96 with n. 100. However, the connection to taxation and credible commitments has not been made in the literature.

3. Market relationships, economically rational behaviour and institutional change

3.1 Economic development 800-322

Over the period 800-300, there was almost a ten-fold increase in population in Greece including Attica, but this was outpaced by economic growth, so that real income per capita increased by 50-100% over the period (Morris, 2004).[47] For example, in the late seventh century, new wealth made all-stone temples common and by "…300 the typical Greek house cost something like five to ten times as much as the typical house had around 800" and there is "every indication that there was a similar improvement in the quantity, quality, and variety of people's material possessions across this period."[48]

Trade expanded at least from the eighth century with concomitant specialisation,[49] and Osborne (1996b, p. 42) argues that already in the first half of the sixth century, archaic Greece "was marked by a 'conglomeration of interdependent markets' in which production and prices in producing and consuming cities were linked." In the late seventh century, "every indication is that a handful of Greeks were aggressively pursuing gain all across the Mediterranean and doing very well out of it."[50] The number of small independent traders probably multiplied between 625 and 475.[51] "The late seventh century saw increasing inter-regional trade, but the real transformation came closer to 550 B.C., when Greek goods […] penetrated societies all around the Mediterranean."[52] At least by 500, major Greek cities such as Athens were permanently reliant on imported grains.[53] By the sixth century, there were true cities with resident artisan and traders.

The expansion of trade was facilitated by the introduction of coinage. It is commonly argued that this important institutional change, which occurred in Greece in the mid sixth century, was probably not motivated by any desire to facilitate trade.[54] Other candidates include facilitating tax payments, paying mercenaries, paying for public building projects, or gaining status (von Reden, 1997). In Athens, it is likely that Peisistratos was responsible for the first coinage and his motive may have been any of these. The original purpose for introducing coinage is less interesting, however, than the fact that the beneficial effects of coinage on economic transaction

[47] Morris (2002) suggests that the population in Attica may have increased from c. 10,000 in 700 to 25,000 in 500. Hansen (1991) suggests a male citizen population of 50,000 in the middle of the fifth century, falling to perhaps 30,000 in the fourth century.
[48] Morris (2004), p. 720.
[49] Osborne (1996a), Thomas & Conant (1999), Morris 2002.
[50] Morris (2002), p. 32.
[51] Reed (2003).
[52] Morris (2005), p. 577.
[53] Morris & Manning (2005), p. 141.
[54] This is despite statements by Herodotos and Aristotle to the contrary. However the consensus of opinion may change over time with the realisation that also small denominations were struck in quantity from the beginning of coinage, cf. below.

will have become quickly apparent. Not surprisingly, small denominations that would have been conducive to monetising everyday transactions and the economy appear already in connection with the beginnings of silver coinage in the sixth century, and this includes the first Athenian silver coinage from the middle of the sixth century (Kim, 2002).[55] With respect to the situation in the fourth century, Osborne (1991 p. 135) argues that "all these considerations point to a very considerable volume and complexity of exchange within the city of Athens. It is difficult to believe that this can have been achieved without a high degree of monetization."

As a result of grain imports and specialisation, Athens ceased to be a community of self-sufficient farmers. In the fourth century, we meet one Phainippos who refrains from growing wheat on his well-watered lands, preferring vine as a crop that could provide cash.[56] Osborne (1991, p. 140), argues that "Phainippos' farming policy certainly was not centred on self-sufficiency, and the account which we are given gives no warrant for ascribing to him a 'satisficer' rather than a 'maximiser' mentality." Similarly, "if the cash demands [to pay taxes etc.] of the Athenian rich were largely met from agriculture then it seems inevitable that they were committed very heavily indeed to market transactions."[57]

The composition of the wealth of the elite also changed over time, from a situation early in the archaic period when non-agricultural wealth was of clearly minor importance for the traditional aristocracy, to the fourth century, when wealthy persons are found to have a variety of financial and other assets (workshops, slaves, loans, etc.).[58]

While Phainippos was very well-off, the reliance on the market was not restricted to the rich. "In bad years most and in normal years many Athenians had to buy their cereals. Aristophanes tells us about a peasant who carries his wine to the market to sell it and buy flour instead."[59]

In consequence, the citizens of Athens (and other Greek cities) increasingly came to depend upon market relationships in their everyday life.[60]

At least by the late fifth century, it is evident that market forces are at play and that people are aware of this.[61] In the comedies of Aristophanes, several remarks make it clear that prices

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[55] This discover goes against earlier orthodoxy, which claimed that "a moneyed economy developed in the Greek world only from about the middle of the fifth century and onwards" (Kim, 2002, p. 45)
[56] Osborne (1991), p. 127.
[57] Osborne (1991), p. 134.
[58] Cohen (1992), Davies (1981).
[59] Hansen (1987), p. 12.
[60] Herodotos (I. 152-53) tells us how Cyrus (Persian ruler c. 557-530) replied to a Spartan embassy that "I never yet feared men who have a place set apart in the midst of their city where they perjure themselves and deceive each other" which was, Herodotos explains, "a threat […] against the whole Greek nation, because they have market-places and buy and sell there". So the central market place was well-known at least by the time of Herodotos, sometimes before 425.
[61] The observation that prices reflect variations in supply is of course commonsense and prescientific (Finley, 1970).

fluctuate with supply, and there is a story, e.g., about people rushing to buy cheap sardines. Aristotle, Finley (1970, pp. 13-14) notes, "knew perfectly well that prices sometimes responded to variations in supply and demand," and "price variations according to supply and demand were a commonplace in the Greek life in the fourth century B.C." Loomis (1998, p. 254) argues that "economic forces of supply and demand are a […] likely explanation for differences in wage rates across occupations and over time in Athens in the fifth and fourth centuries. Finally, the fact that the Athenians regulated the price of grain in the market place signals an awareness that prices fluctuated.

In the second half of the fourth century, changes in legislation were undertaken in order to facilitate commercial activity, in particular for foreigners: sometime in the 340s the procedures for hearing commercial disputes were altered to allow adjudication within a month, and the law was changed to admit to litigation individuals without regard to their nationality.[62] This arguably was an important element in the increase in public revenue that occurred in the 330s, which must to a large extent have been due to harbour dues. The measures signal an awareness of the importance of commercial activities and the existence of economically rational behaviour. Also by the fourth century, the Athenians had developed a private banking system, engaged in taking deposits and lending to private entrepreneurs. "The [Athenian] bank is a business yielding a hazardous revenue from money which belongs to others."[63]

To sum up, we have three simultaneous developments: income growth, increasing trade and specialisation, and a movement towards a monetised market economy. The pace and scope of this development is open to debate, but the direction seem clear. Obviously we would expect trade and specialisation to be important factors for the positive trend in incomes. Furthermore, when Athens in the fourth century emerges conspicuously reminiscent of a "market economy" it seems likely, I would argue, that this was the result of a gradual process, beginning already in the seventh century (though the pace may have quickened after the Peloponnesian War[64]). This development will arguably have had repercussions on people's behaviour, their view of the world (belief system) and their moral attitudes.

[62] Burke (1992), Cohen (1992). Cf. also Cohen (1992, 2002) for other examples of changes in formal rules that facilitated business activities, e.g., by women and slaves.
[63] Demosthenes XXXVI.11.
[64] Several authors argue that the fourth century marked a change in Athens. For example, Cohen (1992, p. 4) summarises: "Fourth-century Athens was very different. The Athenians functioned through a market process in which unrelated individuals [...] sought monetary profit through commercial exchange." Burke (1992) places the onset of "commersialism" after c. 340.

3.2 Consequences of the changes in economic life in Athens

It seems reasonable to argue that the expansion of individualistic market relationships (the logic of the market) encourage self-interested behaviour and an individualistic ethos, [65] i.e., more of what we would call "economically rational behaviour," and less "embededness." For the end of our period, Christesen (2003) argues that individuals in fourth century Athens displayed instrumental, income-maximising behaviour, that they were aware of and tried to control risks, and that there was a positive correlation between risk and return.[66]

Tentatively, I would argue that over the three centuries 600-300 an increasing prevalence of market transactions (in contrast to giving and lending from family, friends and neighbours) thus made people think and behave differently, but also, equally importantly, to expect another kind of behaviour (i.e. self-interested, instrumental, income maximising) from their fellow citizens (and others). The individual would increasingly expect economically rational behaviour – looking after one's own interest – whether in business transactions, politics, as tax payers, or in public administration. That this "economic spirit" gradually evolved does not mean that it describes all behaviour at any point in time in this period; but then it does not describe all behaviour in modern society either.

These changes in attitudes may have been further encouraged by an interaction between individual behaviour and income levels. On a pragmatic level, it is often argued that the rise in incomes may have been a prerequisite for democracy by increasing the potential for leisure and thus political participation among the common people. This, however, is not the point I wish to address here. A steady increase in average incomes can have profound implications for individual behaviour. To see why, consider how people make decisions in everyday life. Their are two polar modes (ideal types) of decision making – on one hand, the individual who makes conscious efforts to make explicit and calculated decisions on the basis of expected costs and benefits associated with different alternatives, and, on the other hand, those who follow their habits, who explain their behaviour with reference to the habitual, who act in an unreflective manner. The former type corresponds to "economically rational behaviour" – it is the kind of behaviour that is assumed in most economic analyses. Obviously everybody follows habits to a large extent, otherwise life would be unmanageable and habits reduce transaction costs, but the degree to which behaviour is governed by habits is likely to vary across the population in a systematic manner (Lindbladh & Lyttkens, 2002).

[65] The upper class was characterised by a highly competitive individualistic ethos at least from Homeric times (Murray 1993, Ch. 12). Indeed individualism is seen as a heritage of ancient Greece (Greif, 2005, p. 769).
[66] Cf. also Osborne (1991) above on economically rational behaviour in fourth century Athens.

In modern society, there are several reasons to believe that those with fewer resources at their disposal are more prone to rely on habits (Lindbladh & Lyttkens, 2002). From a sociological perspective, one could argue that the "habitus" of those in low social positions is adjusted to narrow margins of choice that make it more natural and comfortable to keep things as they are.[67] The systematic emphasis on the value of constancy and living in the present may be defined as an adjustment to the long-term experience of restricted options; people adjust to a situation where it just seems meaningless to devote resources to explicit decision making. Coming back to the economic perspective, one would argue that explicit decisions are costly (transaction costs) and as such more likely to be undertaken by the affluent in society. Additionally, experience with the process of explicit decision-making reduces the cost of that activity, so the tendency for the well-off to engage themselves more in explicit decision-making is self-reinforcing. Finally, the normative attitude "let's keep things the way they are" is also conditioned by habitus, so that it is viewed more positively by those with scarce resources who also rely more on habits (Lindbladh & Lyttkens, 2002).[68]

The implication of these considerations is that a general increase in prosperity is likely to produce more of explicit decision-making, more of economically rational behaviour, and more of a positive attitude towards such behaviour. This likely is particularly important in times of rapid changes in society, as is the case now and as arguably was the case also in the late archaic and classical periods in Athens. Consequently, I would suggest that similar considerations are likely to apply in ancient society, *mutatis mutandis*, so that the prevalence of economically rational behaviour – interpreted as explicit decision-making based on perceived costs and benefits – is likely to have been encouraged in ancient Greece as real income increased over the centuries.

This would in itself reasonably have facilitated the gradual expansion of market relationships, in particular since it increased the individual's propensity to undertake the kind of changes in behaviour and life-style that a reliance on market relationship inevitably entailed (and to accept a reliance on a market for necessities).

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[67] The habitus theory is ultimately a theory of practical sense that accounts for the logic and reason of everyday practices. The structure of habitus is engendered by practice and directed towards practical functions, which simply means that people learn by their everyday actions to recognise the limits of their potentialities, and that they consequently adjust their strivings to this experience-based estimation of chances. Habitus is the mechanism which converts objective conditions attached to a certain position in the social structure into subjective aims and motivations in accordance with the principle "to make a virtue of necessity" (Bourdieu, 1986, 1990).

[68] Possibly one could here also draw an analogy with the theory of cognitive dissonance, which suggests that people like to believe that they have made good choices. In the present case, one would expect people to believe that they use the best kind of decision-making process, and, that this by extension also affects their normative views on different kinds of behaviour.

So what we have is an increasing importance of market relationships, fostering a gradual expansion of economically rational behaviour, with a parallel change in what kind of behaviour people expect from others, a process further facilitated by the rise in incomes.

This development, in turn, has important implications for the effects of different institutional set-ups and for the incentive to change institutions. For example, the effects of formal and informal rules governing taxation changed. The basis for compliance with the property taxation (cf. section 4 below) was eroded as the act of tax compliance became more of a consciously calculated decision for the rich, rather than being something which followed automatically (by habit) with one's social position. The basis for compliance thus shifted from custom to quasi-voluntary compliance (Levi 1988; Lyttkens 1994), so that individuals still paid even though it was individually rational to evade the burden, but only as long as they believed that other also paid and that the revenue produced something of reasonable value to the tax payer. This change in attitude probably had occurred at least by 400, because in the fourth century we here numerous stories from the law courts of individual tax-evasion.[69]

The emergence of economically rational behaviour arguably also increased the demand for market-enhancing institutions, such as the ones introduced in Athens to facilitate commercial activity.

The change in attitude must also have had repercussions in the political market. When people expect others to act as economically rational, self-interested individuals, the political market becomes more of a zero-sum game, an arena for the extraction of surplus from others (i.e. conforming more and more to the model in Acemoglu & Robinson (2006)). Therefore the changes in outlook that followed from rising real incomes and the increasing importance of market relationships will have strengthened the tendency described in section 2, namely that successful politicians had to advocate policies that benefited the less affluent majority.

Those active in the governing of the state were originally members of the elite, and it is among them that we would expect the change in attitude to manifest itself first. If we think of this process as under way already in the sixth century, it certainly makes Kleisthenes "unprecedented" action (to break the informal rules of aristocratic competition buy turning to the common people) less of a surprise. It appears rather as a natural consequence of an increasing tendency to view the political arena as a means to further one's own interests. It also helps explain why other members of the elite followed the example of Kleisthenes and increasingly advocated measure that benefited the majority in order to gain the upper hand in the competition within the elite. With time, and with the increasing political influence of the poor majority, this

new political attitude would spread to large segments of the population. By the time we can start talking about a male democracy, after the reforms of Perikles, it had become an issue of to what extent the poor would use the political arena to exploit the rich through redistributive measures such as taxation, confiscations etc.[70]

The change in outlook also arguably contributed to (and was reinforced by) the change in the composition of the class of political leaders in Athens that occurred over time. An increasingly economic outlook would mean that – over time – leaders would not be supported *qua* belonging to the traditional elite, with people instead increasingly being interested in which politician could be expected to deliver the most to promote one's own interest. Consequently, one finds that "Down to and including Perikles all Athenian leaders (except, perhaps, Ephialtes) had been aristocrats and landowners; after him they were often of lower birth – just as wealthy […] their power was based much more on their ability to persuade people in the Assembly."[71] In the fourth century noble ancestors/family largely ceased to have a role, and we even find men of modest means among the politicians.[72]

These new leaders had no tradition to base their position on, and would instead have to cater for the increasing demand for politics that maximised the utility of the poor. The latter found one expression in an increase in public payments that benefited the poor.

In other words, it was not only the case that after Kleisthenes the aristocrats increasingly could be expected to turn to the people for support in the aristocratic in-fighting (see above), but it was also the case that this tendency would be strengthened by the general transformation of how ordinary people viewed the world, more and more in economically rational terms.

The tendency towards economically rational behaviour could help explain another feature of the male Athenian democracy which is evident in the fourth century. The Athenians were extremely careful to establish institutions that enabled them to control that magistrates (and anybody else who handled public money) did not enrich themselves at the public's expense, and

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[69] The earliest clear indication seems to be Lysias XX.23 which is dated 410. By that time there were other factors that also reduced the degree of compliance, cf. section 4.2.

[70] The pressure on a rich individual to perform liturgies (cf. below), pay the property tax etc was considerably strengthened by the risk that a political trial would lead to heavy fines or outright confiscation of property. It is a recurrent theme in the ancient literature that the poor in a democracy might exploit the rich in this way. The revenue from the courts could make a large contribution to state revenue, but it is not known to what extent rich persons actually suffered in the courts. See for example Ober (1989), pp. 200-202. In an oration spoken after 338 "there are three examples of how the Athenian courts did *not* fall into the temptation of condemning a number of rich mining-concessionaires. On the other hand, … in those very same years, the richest of all … , Diphilos, was condemned … and his fortune of 160 talents distributed among the citizens" (Hansen, 1991 p. 315). At the time, 160 talents corresponded to some 13% of total public revenue.

[71] Hansen (1991), p. 39. Cf. also Hansen (1991), pp. 272-274. Davies' (1981, pp. 68-69 and ch. 6) provides an analysis of the declining importance of wealth and public spending as a political power base. Ober (1989) notes that "by the third quarter of the [fifth] century [...] the established road to a political career [was] more problematic" because "the Athenians became increasingly suspicious of the old symbols of aristocratic [...] power" (p. 86).

[72] Cf. Ober (1989), ch. 6.E.

rules that meant that politicians were held accountable for the advice they gave. "The Athenians had the characteristic of being honest with themselves about themselves. They were deeply suspicious of one another […] they went on the basis that, given the chance, every one of them would have his hand in the till and make a profit out of political activity, and they took every possible means to limit the chances" (Hansen 1991, p. 310). This overriding aspect of the Athenian institutions has a very natural explanation in the emergence of economically rational behaviour.

One should point out at this point that experience of the practical running of the democratic institutions was widely spread among the citizens. In the fourth century, the male citizens numbered perhaps around 30,000 and Assembly meetings (of which there were 40 a year) was generally attended by at least 6,000 citizens (Hansen 1991). Hansen (1991, p. 313) calculates that the rules regulating rotation on the council and magistracies ensured that every third citizen served at least once on the council, and that the pool of magistrates must have been well above 1200 persons, corresponding to perhaps c. 5% of the male citizen body in the fourth century.

Finally, it is worth discussing whether the Athenian (and ancient Greek) case represents something of an exception to (or a corroboration of) a theoretical prediction concerning the roots of democracy. Acemoglu & Robinson (2006, p. 32) suggest that democratisation is more likely to occur in more industrialised societies compared to agricultural societies. This is because: 1) land is easier to tax than human and physical capital, which means that landowners have more to fear from democracy than industrialists, 2) social turbulence, as would follow from a revolution, would be more damaging to physical and human capital owners, making them more prone to choose democratisation over repression, and 3) "different sets of economic institutions are feasible in a predominantly agrarian economy," which could mean that democracy is worse for the elite in an agrarian society because "the changes in collective choices that it brings undermine their preferred set of economic institutions."[73]

Athens and other democracies in ancient Greece were obviously essentially agrarian societies, and so their road to democracy is of obvious interest in this perspective. At the same time as they were agrarian societies, however, there were pertinent changes over time. The gradual development of market relationships in Athens, and the concomitant increase in the importance of assets easy to move and more difficult to tax (than land), may have contributed to the stability of Athenian democracy, especially in the fourth century.

4. Variations on a theme – some further notes on taxation in Athens

The nature and development of taxation often has much to tell us about a society (Levi, 1988; Lieberman, 2003; North, 1981). Taxation, and the temptation to engage in excessive taxation, has already figured prominently in the account above. A focus on some further aspects of the development of taxation in Athens complements the analysis of institutional and economic development in ancient Athens.

4.1 Taxation in Athens

After the fall of the Peisistratid dynasty, the five percent tax on produce was abolished. In the following two centuries, the Athenian relied mainly on indirect taxes, head taxes on some specific groups,, informal taxation of wealth, and, eventually, on formal property taxation.[74] I will focus here on the property taxation.

In the classical period, it was considered a duty and an honour for a rich Athenian citizen to perform a liturgy - to finance and manage certain functions for the common good. The trierarchy was a military liturgy: to commission and command a state-owned warship for a year. The other liturgies concerned the religious festivals. In the fourth century there were about 100 festival liturgies each year.[75] The cost of a liturgy often exceeded the annual wage of a skilled workman.[76] The Athenian case is best known, but the existence of liturgies was not confined to Athens. The major festival liturgy is first attested at Athens in 502/1.[77] The trierarchy is attested for Samos in 494 and for Athens and other states in 480. By that time it appears that the trierarchy represented a uniformly applied solution to the financing of naval warfare.[78]

Volunteering liturgists were important throughout the classical period, even though liturgies seems to have been perceived as a property tax at least in the fourth century, when avoidance of these obligations appear, as noted above.[79] The voluntary element in the liturgies is usually explained by the fact that they brought status (honour) and public support. At the same time, non-performance could be sanctioned. Having been appointed to perform a liturgy, it was

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[73] Slavery is an example given by Acemoglu & Robinson (2006 p. 32). However slavery did not disappear with democracy in ancient Greece. (In fact, it has often suggested that slavery was a prerequisite for democracy.)
[74] On Athenian taxation, cf., e.g., Andreades (1979 [1933]), Austin & Vidal Naquet (1977), Lyttkens (1994).
[75] Davies (1967).
[76] Cf., e.g., Lyttkens (1994, 76, and n. 30), and Gabrielsen (1994, part 3) on the trierarchy.
[77] Capps (1943), Davies (1967, 1992).
[78] Herodotos 6.14, 7.181, 8.46, 8.90. Gabrielsen (1994), pp. 37-39.
[79] It is worth noting that those bragging about their great expenditures in several cases had undertaken these only after an unsuccessful attempt to avoid the obligation. Cf. Cohen (1992), pp. 199f.

punishable to avoid it. Furthermore, rich individuals risked prosecution, confiscations and other burdens in the courts, and avoiding liturgical service could be used against you.[80]

A few years into the Peloponnesian War we have our first certain instance of a real tax on wealth in Athens. If not before, the *eisphora* was introduced in 428/7, as mentioned by Thukydides (III.19.1).[81] It was a tax on capital, usually used in times of war. During the following century it was a normal feature of the economic and political life of the Athenians, despite their dislike of direct taxation.

In 378/7, the citizens liable for the *eisphora* were divided into 100 symmories and a general reassessment was made. This was probably also the time when the *proeisphora* was introduced: the 300 richest citizens (3 for each symmory) could be called upon to advance the total amount of the *eisphora* to the state and thereafter to reimburse themselves from the other taxpayers. There is much that seems obscure regarding the existence of lists of those liable to perform trierarchies and other liturgies.[82] It appears however that in 358/7 a symmory system was introduced (or extended to cover) those liable to perform trierarchies.

4.2 Taxation, individual behaviour, and the Athenian economy

Towards the end of the fifth century, a theme appears in the ancient authors that would become frequent during the fourth century. People are accused of evading their civic obligations, of not performing liturgies or not paying the *eisphora*, and of concealing their wealth.[83]

As already mentioned, the gradual emergence of economically rational behaviour must have contributed to the increasing tendency to tax evasion. Another important factor is that the expected average level of property taxation increased, [84] when the tribute from the Empire was lost, and the cost of running the democracy probably was higher in the fourth century (Hansen (1991). Furthermore the rich had less to gain from the Athenian wars.

As tax evasion became an important topic in the forensic speeches, the belief system changed in the direction of expecting more of economically rational behaviour from others (and less of quasi-voluntary compliance), which would again increase the propensity to evade taxation.

On the face of it, the formalisation of the eisphora was to the disadvantage of the tax payers. However, as noted in Lyttkens (1994), the introduction of the *eisphora* meant that the rich

[80] The liturgical class probably numbered somewhere around 300-1200 persons – a relatively larger group n the fourth century – out of a population of perhaps 50,000 male citizens in the middle of the fifth century and 30,000 in the fourth (Hansen, 1991, pp. 53, 90ff).
[81] The *eisphora* may well have existed earlier in the fifth century, cf. Davies (1981), p. 147.
[82] Cf., e.g., Gabrielsen (1994), ch. 8.
[83] Cf. Cohen (1992), ch. 6, Gabrielsen (1986) and Lyttkens (1992, 1994) for a more detailed analysis of this behaviour.
[84] Cf. Lyttkens (1994).

elite had gained considerably in influence over the use of the tax. Arguably, it could only be used with the implicit approval of the rich elite. This change in the system of property taxation may then have been a necessary condition for the continued survival of Athenian democracy, in addition to the changes discussed in section 2.6. "A ruler's costs and benefits from abusing rights depends on administrative capacity and who controls the administration" (Greif, 2005, p. 748). When the rich controls the tax administration, democracy becomes more acceptable. It does not seem too far fetched to suggest that the introduction of symmories for the trierarchies had a similar effect as the *proeisphora* system, namely that it increased the elite's administrative control of the trierarchies.

Another important aspect of liturgies and the *eisphora* is that the rich in both cases needed cash to fulfil their duties. Hence an important effect of the property taxation was that "…large numbers of wealthy Athenians needed large amount of cash, and needed them not just occasionally but regularly" (Osborne 1991 p. 131). Hence they were pushed by the taxation into the acquisition of cash; they were pushed into market relationships, as noted by Osborne (1991). He furthermore suggests that this tendency was operational already in the fifth century. This, as I have argued above, would lead to more of economically rational behaviour, with repercussion in terms of, e.g., an increasing propensity for tax avoidance. So taxation fostered tax evasion, not just because it represented a reduction in wealth or consumption, but also by increasing the tendency that individuals act as calculating income-maximisers.

Finally, it is a common argument that a large part of the trade in Athens was in the hands of foreigners.[85] This is often explained by the fact that the Athenians tended to take a disparaging view of commercial activities, and did not want to lower their own status by partaking in them.[86] However, it has not been noted that there was a fundamental structural reason for this partial "division of labour". Foreigners were not allowed to own landed property in the Greek city-states. Moreover, it could be extremely difficult to become a citizen – in Athens, Perikles' citizenship law in 451/50 restricted citizenship to those whose parents were both Athenian. Henceforth it required a decision of the Assembly for others to become Athenian citizens, and this was a rarely bestowed privilege. As noted above (section 3.1), the Athenians developed some contract-enforcing institutions in the second half of the fourth century, in particular facilitating for foreigners to use the legal system in commercial disputes.

However, the use of these institutions inevitably entailed a disclosure of (a part of) one's wealth. Therefore these contract-enforcing institutions would be efficiently used only if the state

[85] The extent to which Athenian citizens took part as traders or lenders is a hotly debated issue. Cohen (1992) has shown that citizens certainly were active as lenders.

could credibly commit not to transgress the property rights of those who used them. And this was possible precisely with the foreign merchants, who could easily move to another locality with their assets, assets which did not include landed property. Any attempt by the Athenian state to tax them at extortionary rates would simply have led to exit. The Athenians themselves were in a very different position, often with a very substantial part of their wealth in landed property (moving from the community where you were a citizen would always have been a more serious matter).[87] Hence their commercial activities were less likely to be favourably affected by this set of institutions.

5. Concluding remarks

That institutions influence economic behaviour and performance has long been one of the basic tenets of the New Institutional Economics, but it is equally clear from, e.g., North (1981), that influence also runs the other way.

This preliminary exploration into the structural determinants of and effects of institutional change in ancient Athens add some new insights into the political and economic development in the archaic and Classical periods.

Politically, Athens changed from oligarchy to a slightly extended oligarchy, then to tyranny, and then gradually towards democracy, which was seriously threatened after the Peloponnesian War, but survived in a revised form down to 322. Theses political transitions in Athens are consonant with the view that the nature of rule, and the extent to which concessions are made to the other party, whether by the elite or by the poor majority, is significantly affected by what those in power can credibly commit to do, or, in particular, not to do, as envisaged by Acemoglu & Robinson (2006).[88] At the same time, the specific path followed by Athens in the fifth century was due to a particular decision in a formative moment, but even so the development towards a male democracy stayed within the bounds given by the general structural factors (the scope for credible commitments).

Changes in economic life – increasing incomes and an increasing reliance on market relationships – gradually transformed individual behaviour and the individual's view of the world. The ensuing emergence of economically rational behaviour partly shaped the effects of the

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[86] Finley (1999 [1973]). Cf. Cohen (2002) on the consequences for the relative economic position of women and slaves.

[87] This argument implies that we should expect citizens relatively underrepresented in the courts in commercial suits, hence their commercial activities should have been larger than apparent from these cases. Some citizens obviously choose to turn their assets into more liquid forms, to avoid taxation (cf., e.g., Aischines I.101).

[88] Incidentally, it also seems that Athenian history to a certain extent corroborates the observation of Acemoglu et al. (2005) that democracies are more likely than dictatorships to survive in a crisis.

political institutions and contributed to the overall political developments. It also fed back into the gradual development of market relationships, and altered the effects of taxation and affected the demand for market enhancing institutions.

Taxation, finally, added to the changing outlook of the individual by pushing people into market relationships. It also illustrates the need for those in power to credibly commit not to abuse property rights through excessive taxation, if potentially efficiency enhancing institutions are to take full effect, and thus can explain why foreigners were so prominent in trade in ancient Athens.

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