War, disenfranchisement and the fall of the ancient Athenian democracy

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Working paper, please treat accordingly
Comments most welcome

Abstract

The ancient Athenian democracy emerged in 508 (all dates BCE), took shape in the first half of the 5th century, became a dominant naval power, fought a multitude of external wars some successfully others with catastrophic result, underwent a variety of institutional changes, and was beaten by Macedon in 322. The paper employs a political economy framework to examine the causes of her fall. It illustrates that war was a means of redistribution that benefited the majority of poorer citizens at the expense of the rich elite, who born a disproportionate burden of its cost, and whose interests were better served by a regime of restricted franchise and lower taxes. In the context of such tension, defeat in war led to loss of employment opportunities economic power and political standing of the poor majority, which was then followed by their disenfranchisement and the end of democracy. As this sequence took place more than once, it is concluded that her fall was neither avoidable nor inevitable.

JEL Classification: D7, H3, N4

Key words: Democracy, Ancient Athens, redistribution, conflict, disenfranchisement

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1. Introduction

Contrary to the foundation and the performance of the ancient Athenian direct democracy of the 5th and 4th centuries (all dates BCE), its fall in 322 has not attracted the attention of political economy scholarship. The present paper aims to begin such an inquiry, by exploring how internal and external factors, specifically political divisions originating from income inequality and defeat in war, may explain the end of the Athenian democracy.

The direct democracy of ancient Athens emerged in 508 with the Cleisthenes reforms that transferred policy making power from the landed aristocracy to the Athenian demos. During her life span the Athenian democracy achieved extraordinary successes and overcame catastrophic failures. Athens won the Persian wars, established herself as the supreme naval power in the Mediterranean Sea, recovered from the defeat against Sparta in the Peloponnesian war in 404 and survived two oligarchic coups in 411 and 404 prospering again in the second half of the 4th century. It finally succumbed to the might of Macedon in 322. The Macedonians beat the Athenians but could not afford a permanent garrison. Democracy ended when the majority of middle and low income earners was disenfranchised and a government run by the rich elite was established. Drawing on the economic literature of conflict the paper presents a parsimonious model to examine an abstract picture of a complex phenomenon.

The study is part of a growing and distinct literature that uses economic analysis, and especially collective choice and game theory, to explore the political institutions of ancient Athens. Fleck and Hanssen (2006) focus on the ability of democratic institutions, and especially the enfranchisement of the demos, to mitigate time inconsistency problems and encourage investment. In their (2009) paper they use notions of gains from division of labour and incentive theory to explain why the women of Sparta, a militarist society whose agricultural production was based on occupied land and a captive labour force, were uniquely among Greek city–states granted secure land ownership rights. In a series of studies Lyttkens (2006), (2010) and (2013) employs the framework of institutional economics to study the formation of the city–state (polis) as a political and judicial unit, intra–elite competition and the institution of governance of ancient Athens and the nexus between institutional changes and economic performance. Using an asymmetric–information, game–theoretic framework,
Kaiser (2007) analyses the system of liturgies by which wealthy Athenians rather than the state paid for the provision of various public goods including naval defence, and how the mechanism dealt with issues of efficiency, feasibility, and budgetary balance. Ober (2008) argues that the power and wealth of Ancient Athens was built on democratic institutions, which along with a civic culture, led to the organisation and distribution of knowledge among citizens. Kyriazis (2009) uses a public choice framework to examine the Athenian public finances during the 4th century and especially the bargains struck between rich and poor in financing civilian and navy expenditures. Bitros and Karayiannis (2010) and Karayiannis and Hatzis (2012) dwell on the moral norms of Athens including virtue, moderation, honour (social esteem), respect of the liberty of others, defence of the Athenian way of living and aversion towards the acquisition of undue power by any individual, and argue that the economic success of Athens was based on market–friendly, growth–promoting institutions administered by men motivated by such moral norms. D’Amico (2010) applies the theory of public goods to examine the establishment of public prisons in Ancient Greece. Similarly, McCannon (2010) and Guha (2012) apply political economy and game theory to analyse various procedural and substantive aspects of the trial of the Socrates, the famous philosopher, where, interestingly, they reach contrasting conclusions on the institutional efficiency of the justice system. Pitsoulis (2011) discusses the origins of the majority voting rule. Tridimas (2011a) and (2012a) argues that the Athenian institutions of direct democracy, absence of political parties and appointment to office by lot were inextricably linked and mutually reinforcing so that none could operate without the simultaneous presence of the other, while in his forthcoming (2014) study he takes a close look at rent seeking in ancient Athens. Lyttkens (2013) aptly summarises the gains from applying economic methodology to the Athenian democracy; namely, it helps to explain the ancient world, the intuition gained from historical societies may be applied to the institutions and policies of the modern world, and it offers a better understanding of the benefits and limitations of economic theory.

The present paper is structured as follows. Section 2 presents a short historical account of the Athenian democracy, her wars and eventual demise. Since the Athenian democracy ended by a combination of military defeat and disenfranchisement of the majority of the citizens, Section 3 offers a selective review of two relevant strands of literature. First, studies which focus on the change of suffrage, and second studies that examine the relationship between domestic political institutions and international conflict. Section 4 presents the theoretical model. Dividing the society into two groups, the rich elite and the poor majority of citizens, it
first identifies when the latter decide to go to war that may be won with a positive probability (but less than one) providing them with significant material gains from war booty and conquered lands. However, when the rich bear a disproportionate cost of the war, they may decide to mount a coup, or *stasis*, literally, a standing against the constitution, whose outcome is also probabilistic, to overthrow the democracy and end costly wars. We then examine the circumstances when the expected utility of the rich from a costly fight to overthrow the democracy is higher than the utility from fighting an international war. We thus determine a cut off level of destruction below which the rich choose to abide by the policies decided by the poor majority and above which they stage a coup. Section 5 uses the insights of the model to unravel possible causes of the fall of the Athenian democracy, while Section 6 concludes.

2. **Historical overview of the Athenian democracy**

(i) 5th century

Table 1 presents the timeline of institutional and military developments of ancient Athens. The birth of direct democracy, its decision making bodies, their jurisdiction and functions, and the methods of appointing public officials by election or by lot, and their evolution over the span of two centuries have been analysed in several scholarly publications and there is no need to repeat them here.\(^1\) Briefly, direct democracy rose with the Cleisthenes reforms of 508 and subsequent institutional changes which reconstituted the rules for citizenship, established the assembly of (male) Athenian citizens as the principal decision making body, and set up the Council of Five Hundred selected annually by lot, with responsibilities to prepare the agenda of the assembly and carry out the day–to–day administration. Ten generals elected annually served as commanders of the army and navy. Gradually, the aristocratic institutions lost their powers, while the *Heliaia* or ‘People’s Court’ of 6,000 jurors selected annually by lot, took responsibility for trying civil and penal cases, checking the eligibility and conduct of public officers and trying politicians and citizens for treason and corruption charges.

The political transformation of Athens was matched by impressive successes in the battlefield. First, in the 490 land battle of Marathon the hoplites army of landowner–farmer

\(^1\) The original account is given in Aristotle (1984). For a short review of the establishment of democracy in ancient Athens and its principal institutions of governance, see Tridimas (2011b) and the literature therein. For extensive reviews of the operation of democracy see amongst others Hansen (1999) and Ober (2008). The volume by Raaflaub et al. (2007) offers a lively about the origins of the Athenian democracy. Lytkens’ (2013) economic analysis of the causes and consequences of institutional change in ancient Athens, is closest to the intellectual approach of the present paper.
citizens defeated the invading Persians. Second, following an extensive shipbuilding programme, the Athenian fleet triumphed against the Persians in the 480 sea battle of Salamis. The Salamis victory marked the transformation of Athens to a sea power which was accompanied by a shift in the internal balance of political power against the large and mid-size landowners who were the backbone of the land forces, and in favour of the poor class of the *thetes* who before had been excluded from public office, but gained profitable employment as rowers and proved indispensable in manning the navy. Athens then led the Delian League of Greek islands and coastal city–states to pursue the offensive against the Persians at the coast of Asia Minor and Egypt which in 478 transformed into the Athenian League, where the allies were paying tribute to Athens for protection by her navy.

In the mid–5th century direct democracy for the Athenian male citizens was fully functioning. Pay for service in public posts was introduced to allow poorer citizens to take time off their daily work and occupy public office. Being a direct democracy Athens lacked political parties as they are understood today. Appointment to office by lot was a most distinct and significant feature of the Athenian direct democracy, and was considered more democratic than voting, because the latter offered an advantage to the rich elites when contesting elections. At the same time, Athens embarked on an extensive public building programme that included the marvels of the Parthenon, the Long Walls to defend the city and harbour projects.

The expansion of Athenian power and influence opened a deep rift with Sparta, the traditional military powerhouse of ancient Greece, and former ally against the earlier Persian invasions, that led to open hostilities. After various failed attempts to settle their differences, the Peloponnesian War broke out between Athens and Sparta that engulfed not only Greece, but Persia and the Greek colonies of Southern Italy and Sicily. The war was long, lasting from 431 to 404, and multi-phased. Athens was thoroughly defeated by Sparta and Syracuse in the Sicilian expedition of 415 – 413 where her fleet and troops perished. Following the defeat, the democracy was overthrown and an oligarchic dispensation was installed granting political rights to 5,000 men who could afford hoplite equipment and headed by a Council of Four Hundred. Four months later, in 410, democracy was reinstated by the navy after the latter vanquished the Spartan fleet in Cyzicus. The war carried on and the Spartans destroyed the Athenian fleet in the 405 battle of Aegospotami and blockaded Athens. Threatened by

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2 See Tridimas (2012) and Lyttkens (2013), chapter 5, for an economic analysis of the origins and the advantages of using the lot to fill Athenian public posts.
starvation Athens surrendered in 404 and her league was dissolved. A Spartan garrison was stationed and the Long Walls were demolished to diminish Athens’ defence capabilities. The democratic constitution was abolished and Athens was ruled by a cruel 30-member strong oligarchic commission, known as the “Thirty Tyrants”. Their rule was based on terror and intimidation, condemning citizens without trial, persecuting and executing opponents and confiscating their properties. The democrats that managed to flee regrouped and in 403 they entered Attica. After winning the battle against the oligarchs, they expelled the commission and restored democracy. The remnants of the oligarchs appealed to Sparta, but the latter decided to settle: the Athenians were left in control of Athens and the oligarchs were allowed to set their own polis in Eleusis in northwest Attica. Two years later the democrats retook Eleusis and the remaining oligarchic leaders were executed.

(ii) 4th century

A number of institutional changes followed. Blaming the ‘demagogues’ for mistaken policy choices and defeat in the Peloponnesian War, the powers of the Assembly were restricted. Laws describing “general norms without limit of duration” were no longer to be decided by the assembly but by a special board of legislators, chosen by lot from the same panel of 6,000 jurors of the People’s Court. The relative power of the Popular Court against the Assembly also increased, as it was granted the power to nullify Assembly measures deemed contrary to the laws, fine their proposers, and impeach politicians accused for attempting to overthrow the constitution, treason, deceiving the people and corruption (see Hansen, 2010). Funding of a variety of state functions was then fixed by law diminishing the role of the Assembly in deciding public expenditure. The new elected offices of the treasurer of the military fund, the board of the theoretic fund to manage festival money, and the controller of the finances were also established. Supervision of the administration of the laws was transferred to the Areopagus. With the restoration of democracy, pay for attending the Assembly at the average daily wage was introduced. Gradually the economy recovered and public revenues burgeoned. Helped by Persian money, Athens rebuilt her fleet and formed new alliances but did not levy tribute. Fighting against Sparta restarted with the Corinthian war, 395–387. A new anti–Spartan naval alliance, the second Athenian League was set up, 378–355, and fought several wars against rival Greek city–states but Athens failed to achieve the earlier supremacy. In the 338 battle of Chaeronea Philip of Macedon inflicted a heavy defeat on an
Athenian – Theban alliance forcing them to join the Macedonian alliance that led the invasion of Persia under Alexander the Great.

Table 1: Timeline of the Athenian Democracy

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>750–500</td>
<td><strong>ARCHAIC ATHENS</strong></td>
</tr>
<tr>
<td></td>
<td>Principal bodies of government: Nine archons selected from the aristocracy, and Areopagus Council consisting of former archons, overseeing laws and magistrates and conducted trials</td>
</tr>
<tr>
<td>632/631</td>
<td>The aristocrat Cylon mounts a failed coup to establish himself as tyrant</td>
</tr>
<tr>
<td>621</td>
<td>Draco compiles a written code of laws</td>
</tr>
<tr>
<td>594</td>
<td>Solon the lawgiver introduced a wealth–based political dispensation</td>
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<tr>
<td>546–510</td>
<td>Tyranny of Peisistratus and his son Hippias</td>
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<tr>
<td>510</td>
<td>Hippias expelled</td>
</tr>
<tr>
<td>508–404</td>
<td><strong>CLASSICAL ATHENS. 5TH CENTURY DEMOCRACY</strong></td>
</tr>
<tr>
<td>508–507</td>
<td>Democracy established: Cleisthenes reforms of citizenship and Council of Five Hundred</td>
</tr>
<tr>
<td>490</td>
<td>Victory against the Persians at Marathon</td>
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<tr>
<td>480</td>
<td>Victory against the Persians at Salamis</td>
</tr>
<tr>
<td>487</td>
<td>Selection of nine archons by lot</td>
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<tr>
<td>479</td>
<td>Victory against the Persians at Mycale – end of defensive wars against the Persians</td>
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<tr>
<td>464–446</td>
<td>‘First’ Peloponnesian War ends with the 30 Year peace treaty between Athens &amp; Sparta</td>
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<tr>
<td>454–404</td>
<td>First Athenian League</td>
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<tr>
<td>451</td>
<td>Pericles’ law restricts citizenship to those whose both parents were Athenians</td>
</tr>
<tr>
<td>431–404</td>
<td><strong>Peloponnesian War, Athens V Sparta</strong></td>
</tr>
<tr>
<td>421</td>
<td>Peace of Nicias after indecisive campaigns</td>
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<tr>
<td>415–413</td>
<td>Sicilian expedition of Athenian navy. Athens defeated by Syracuse and Sparta</td>
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<tr>
<td>411</td>
<td>Democracy overthrown by oligarchic coup</td>
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<tr>
<td>410</td>
<td>Democracy restored by the Athenian navy</td>
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<tr>
<td>404</td>
<td>Athenian defeat and surrender. Tyranny of the Thirty</td>
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<tr>
<td>403</td>
<td><strong>CLASSICAL ATHENS. 4TH CENTURY DEMOCRACY</strong></td>
</tr>
<tr>
<td>403</td>
<td>Democracy restored</td>
</tr>
<tr>
<td>395–387</td>
<td>Corinthian War – Athens unsuccessful</td>
</tr>
<tr>
<td>378–355</td>
<td>Second Athenian League</td>
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<tr>
<td>358–355</td>
<td>Social War – Athens unsuccessful</td>
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<tr>
<td>355ca</td>
<td>Theoric (festival money) fund formalised</td>
</tr>
<tr>
<td>355–346</td>
<td>Sacred War – Athens unsuccessful</td>
</tr>
<tr>
<td>338</td>
<td>Athenian defeat in Chaeronea by Philip II of Macedon</td>
</tr>
<tr>
<td>323–301</td>
<td><strong>Wars of succession to Alexander the Great</strong></td>
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<tr>
<td>322</td>
<td>End of the Athenian Democracy after defeats by Macedon in Amorgos and Cramon</td>
</tr>
<tr>
<td>322–229</td>
<td><strong>HELLENISTIC ATHENS</strong></td>
</tr>
<tr>
<td>319</td>
<td>Athens granted autonomy by Macedonian ‘regent’ Polyperchon</td>
</tr>
<tr>
<td>317</td>
<td>Autonomy revoked by Macedonian General Cassander after defeating Polyperchon. Demetrius Phalereus selected as ‘steward’</td>
</tr>
<tr>
<td>307</td>
<td>Macedonian General Demetrius Poliorcetes expels Demetrius Phalereus</td>
</tr>
<tr>
<td>301</td>
<td>Poliorcetes defeated at Ipsus. Athens ruled by tyrant Lachares</td>
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</tbody>
</table>
(iii) **Inequality, taxation and political divisions**

Athenian citizenship conferred not only political rights but important financial benefits too. Over and above paying those serving in public office, the Athenians received *theorica* – “theatre money” – to enable poorer citizens who could not afford the admittance ticket to attend theatre plays without losing income during festival days. In addition, to those financial benefits the great majority of the Athenian citizens were excluded from direct taxation. Athenians perceived personal taxation as a sign of servitude. It was Cleisthenes who abolished the tax on produce that had been in place before (Harris, 2002). Only the “rich” were liable to a property tax introduced in 428/7 to pay for the war against Sparta and became permanent in the 4th century, at a tax rate of 1%. Who were the rich is a vexed question. According to Cartledge (2009, p.23) “The criterion of distinction was leisure: what mattered was whether or not one was sufficiently ‘rich’ not to have to work at all for one’s living ... The relationship of rich and poor citizens was conceived as one of permanent antagonism, which too often took an actively politically form”. Jones (1958) calculates that 6,000 Athenians had to pay that tax.

In addition, the 1,200 Athenians richest were liable to perform liturgies, that is, to finance public services, like a *trierarchy*, the responsibility to pay for the command, outfitting and maintenance of a trireme for one year, and public festivals, including staging theatrical plays, choirs, and troops of runners for various competitions. Another 4th c. liturgy was the advance payment of the total sum of property tax by the 300 richest Athenians (with estates worth between 3 and 4 talents), who would in turn collect the tax due by the rest of the taxpayers liable to pay. Despite its nature as a mandatory levy, rich Athenians had an incentive to spend generously on liturgies. Those harbouring political ambitions for elected office had the opportunity to advertise and promote themselves. Equally, in the 4th c. performing a liturgy was a useful defence against court accusations that a rich man avoided his duties to the polis.

Lyttkens (1994) and (2013) argues that the 4th c. formalisation of liturgical duties including

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3 “… to be one of the rich citizens who performed liturgies a man would have to have a property of at least 3 or 4 talents. 1 talent equals what an ordinary Athenian could earn in the course of more than ten years, so that the property of any one of the roughly 1200 liturgists would represent a lifetime’s ordinary earnings” (Hansen, 1999, p.115).
the liturgy of advance–tax–payment, and the associated partial redistribution of powers from the Assembly to the courts and Areopagus (where the rich could be more influential), signified an increase in the political influence of the rich and their control of tax revenues, because their agreement and cooperation became a necessary condition for the operation of the system.\(^4\) An additional, but more sinister method of securing revenue from the rich was through confiscation of properties by the courts. The 4th century marked the rise of anti-democratic thinking. Philosophers like Plato, Isocrates and Aristotle denounced the democracy as a tyranny of the poor over the rich, while Xenophon and Isocrates also exalted the virtues of kingship.\(^5\)

Drawing on the literary sources, Kron (2011) illustrates the inequality of wealth and its concentration in the hands of the rich elite. He estimates that in the mid to late 4th c. total Athenian wealth was 12,661 talents, which with a population of 31,000 adult male citizens implies a mean wealth of 2,541 drachmas (1 talent = 6,000 drachmas). Further, he calculates that median wealth stood at 925 drachmas, the Gini coefficient was 0.71\(^6\), the top 1% of the population (that is the class charged with advance–tax–payment liturgy) owned 30.9% of wealth and the top 10% owned 60.2%, and that there were about 5,000 landless Athenians. Unfortunately, this most informative snapshot of wealth distribution cannot tell us whether it had worsened or improved in comparison to earlier periods.

Thus, like all democracies the Athenian democracy too engaged in redistribution that took the form of grants to the poor and their exemption from taxation, taxation of the rich, and mandating them to finance various public services. Although in the direct democracy there were no political parties to articulate class interests and ideologies or coordinate election campaigns, the division between the rich and the poor was clear and was often manifested in different foreign policy objectives. The rich who preferred not to pay for financing wars, and the farmers who worried that their land would be destroyed when called up for military service (either by neglect or invaders), favoured peace. On the other hand, the poor with less property to lose, the prospect of gainful employment in the fleet and land allotments abroad if victorious, the so–called “cleruchies”, often voted for war, while also worried about the fate

\(^{4}\) In the vein of Acemoglu and Robinson (2006), he views the shift of some political powers to the rich elite as manifesting a credible commitment of the poor that exploitation of the rich through taxation would not become excessive.

\(^{5}\) For an informative review of ancient Greek political thinking see Cartledge (2009).

\(^{6}\) In comparison, the respective Gini coefficients for England were 0.93 in 1911–13 and 0.83 in 1953–54, and 0.79 for the USA in 1998 (Kron, ibid.).
of democracy if overran by Athens’ enemies (Jones, 1958, chapter 5). With the poor being the majority it comes as little surprise that Athens was almost constantly at war. In sum, in the 141 year period 479–338 Athens had not had more than ten consecutive years of peace and was on average at war for two out of three years. Without denying the importance of honour and status, emphasised by historians (Cartledge, 2009), war served purely materialistic objectives too: gainful employment, spoils, tribute and new lands at a time when in the absence of industrial capital land was the basis of the economy.

(iv) Defeat, disenfranchisement and the end of democracy

In 322, following the death of Alexander the Great, Athens revolted against the forced alliance with Macedon. Her navy was destroyed in the sea battle of Amorgos and the land forces were overwhelmed in Crannon. An oligarchy was then established, “perhaps less by a dictatorial decision of Antipater [leader of the Macedonian victors] than by the support he gave to the regime's opponents” (Will, 2008, p.31). The new oligarchic regime abolished the People’s Court and out of an estimated population of 21,000 male citizens it disenfranchised the poorer classes, by limiting the franchise to 9,000 citizens owing property over 2,000 drachmae, bringing the end of the democracy. Pay for public service and assembly participation ended, while assembly meetings were reduced to a ceremonial function. A series of ultimately failed attempts to regain her previous prominence followed when Athens was often the bone of contention between rival successors of Alexander, her power eventually declined ending “her history as an independent city” (ibid.). A reversal of redistribution through the public purse followed. Demetrius Phalereus who ruled between 317 and 307 abolished about 100 festival liturgies. Each remaining festival was financed by a single individual, the agonothetes, who would have the obligation only once and was given public funds to spend to top up his own contribution (Davies, 2008).

3 A selective review of two strands of literature

The historical narrative of the fall of the Athenian democracy revealed that (a) conflicts about income distribution were prominent during the lifetime of the democracy; (c) the poor majority favoured war while the rich preferred peace; (b) the democracy was interrupted and indeed ended after military defeat by an external enemy and was replaced by a domestic

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7 Historians consider the political importance of the defeat as grave as the Athenian victory at Salamis in 480 BC that inaugurated the rise of classical Athens (see Will, 2008; Ashton, 1977, and the references therein).
oligarchy supported by the Athenian rich elite rather than direct rule of the foreign victor. Therefore a systematic explanation of the fall of the democracy must combine two elements of conflict, domestic clash between the rich elite and the poor majority and inter–state war. This is accomplished in Section 4; the present section offers a selective review of the relevant strands of literature.

3.1 *Enfranchisement and disenfranchisement*

Conflict between a rich ruling elite and a poor majority excluded from government is at the heart of a large stock of rational choice literature on the establishment of democracy, where the majority decides policy that typically involves redistribution in favour of the poor, or oligarchy, where the elite is in control. The empowered elite extend the franchise when the perceived benefits from doing so outweigh the costs of redistribution from the rich to the poor. Acemoglu, Johnson and Robinson (2000), Rosendorff (2001), Acemoglu and Robinson (2006), Robinson (2006) view the concession of suffrage by the elite to the poor as a credible mechanism to stave off a revolution by the disenfranchised poor that expropriates their assets. On the other hand, the elite stung by the amount of taxes they pay to finance redistribution to the poor under majority rule, may mount a coup to overthrow the democracy and reduce redistribution.

Instead of fear of revolution, Bueno de Mesquita et al. (2003), Bueno de Mesquita and Smith (2009) and Lizzeti and Persico (2004) focus on intra–elite divisions and the gains from public goods. In systems based on a narrow “selectorate” (the members of the society with the right to select the political leader), like autocracies, rulers tend to offer to their supporters, whose backing is essential for staying in office, transfers and private goods, while in systems based on large numbers of citizens with full political rights, like democracies, leaders tend to offer public goods. When circumstances change and some members of the elite value public goods higher than private transfers they find optimal to extend the suffrage to previously disenfranchised groups that also benefit from those public goods (and would have benefited less by receiving a smaller transfer). External threats may also lead to democratization as noted by Therborn (1977), while more recently Ticchi and Vindigni (2009) argued that the

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8 For similar arguments see also Justman and Gradstein (1999), Bourguigon and Verdier (2000), Conley and Temini (2001) and Ellis and Fender (2009). In an earlier contribution Bates (1991) noted that the more elastic the tax base used by the sovereign to extract revenue, the more control of policy he surrenders to taxpayers.
elite offer political rights to the poor in exchange for their willingness to fight against a foreign enemy and extend voting rights to women so that they replace men as the labour force in the industry.

Congleton’s (2004), (2007) and (2011) explanation of the emergence of parliamentary democracy draws attention to the fact that revolutions are less likely to establish democracy. Revolutionary leaders may prefer to stay in office and reward their supporters rather than risk electoral defeat. Their promise of democracy may then lack credibility. His analysis of suffrage reform emphasises the incentives of incumbent legislators to relax franchise restrictions, and shows that during the industrial era universal suffrage came as a result of changing economic interests, ideology and sentiment against earlier illiberal norms and practices, electoral objectives of political parties and threats of industrial unrest.9

The theories of democratisation sketched above contrast with the view that income growth causes democracy, an empirical regularity noticed by Lipset (1959). In this view, industrialisation and economic development increase complexity and sophistication of transactions and the number of market participants; as a result despotic rulers lose control and democracy prevails.10

3.2 Domestic political institutions and war

The economic analysis of conflict considers violent contest for appropriation of resources as a rational alternative to production and exchange, the usual peaceful forms for acquiring goods and increasing utility. Conflicts are analysed as games of strategic interaction between the rivals where, given the technology of conflict or equivalently a contest success function, each contestant chooses his investment in arms as the best response to that of his rivals. Contrary to mutually beneficial trade, conflict is a zero–sum game (or more accurately a negative one when considering the losses of life and property) where a single winner takes the whole of the contested asset, and the choice between conflict and peaceful means of

9 For voluntary franchise extension without the threat of revolution see also Llavador and Oxby (2005), and Jack and Lagunoff (2006), Engerman and Sokoloff (2006), Munshi (2011) and Hoperdahl (2011).

10 Empirical findings in support of the hypothesis are presented in amongst others Barro (1999), Boix and Stokes (2003), Borooah and Paldam (2007), Paldam and Gundlach (2008) and (2009), Papaioannou and Siourounis (2008), but more recently Aidt and Franck (2013) find only limited support for the hypothesis. Przeworski (2005) advocates a more nuanced view maintaining that economic development does not affect the probability of an autocracy transforming to democracy but democracy is more stable in a developed economy.

A number of studies look closely at how domestic politics may affect the incentives of a country to go to war against a foreign state, a question that is closer to the present inquiry. Garfinkel (1994) demonstrates that because in a democracy the government risks losing an election if it diverts resources away from civilian causes that benefit all citizens, military spending in democracies is less than in non–democracies, which in turn decreases the likelihood that democracies engage in conflict. Hess and Orphanides (2001) are less sanguine about democracies avoiding war. In a general equilibrium model they show that even democratically elected incumbents with poor records of managing the economy are probable to start a potentially avoidable war because it offers them an attractive diversion that if successful can secure re–election.

Similarly, Bueno de Mesquita et al. (2003) focusing on the support that a leader receives from the selectorate, note that “… large – coalition leaders, being just as eager to retain office as their small–coalition counterparts, must be especially concerned about policy failure. To reduce the risk of policy failure and subsequent deposition, they make a larger effort to succeed in disputes. This means they are willing to spend more resources on the war effort to avoid defeat and only engage in fights that they anticipate winning…” (ibid, p.225.) Democracies then impose more stringent constraints on the choices of their leaders to go to war, so that in general they are less prone to fight against each other, they tend to fight against non–democracies, and they pick fights that they expect to win. Using an analogous calculus of costs and expected benefits, Jackson and Morelli (2007) show that when the ruler of a country expects a net–of–cost gain from war that is greater than that of the representative member of the society, the country is more likely to go to war. They conclude that since the ruler is closer to the median voter in democracies than in dictatorships democracies are less likely to fight against each other. Examining the selectorate – leader relationship in the light of principal – agent theory, Tangeras (2009) shows that democracies are more peaceful than autocracies because opportunistic politicians (who wage costly wars against the interest of the electorate) are voted out of office. On the contrary, dictators are ousted of office at a greater cost to the narrow selectorate and knowing that they tend to be more aggressive. It is the
possibility that politicians may abuse citizens that prompted Hess and Orphanides (2001, pp.801 – 802) to argue that “Another way to sustain democratic peace would be to alter the domestic institutional framework underlying foreign policy decisions so as to involve voters directly … (i.e., a direct democracy)”. Investigating post–war settlements in the light of the logic of political survival, Bueno de Mesquita et al. (2003) model the leader of a war victor as having three options against the defeated country, namely to take her resources, install a puppet government or to change her political institutions. The purpose of the latter is not so much to obtain material benefits, but to secure that the foreign policy of the defeated country will serve the policy interests of the victor. Noting that the different options imply different costs, they predict that in order to increase his chances of domestic survival a leader of a small coalition and large selectorate will choose to take resources rather than the other options.

4 A model of democracy, war and oligarchy

The present section uses a formal model to examine the decision of the poor majority under democracy to go to war, how the latter affects the elite, and whether or not the elite chooses to attack the democracy to establish oligarchy. Given the prevalence of antagonism between poor and rich in ancient Athens, we model the fall of the democracy by following the conflict view. Contrary to the literature discussed above that pits the leader – agent against the selectorate – principal, the model is one of two competing groups that make up the selectorate, the rich and the poor. Similarly to Acemoglu and Robinson (2006) we model destructive conflict between two social classes. However unlike them, who consider that the rich always win the conflict against the poor if they initiate one, we treat the probability of victory in both the external and internal conflict as endogenous.

We assume that the economy of Athens consists of two types of individuals, the majority of poor indexed by $P$ with fixed income $Y_P$, and the minority of rich indexed by $R$ with fixed income $Y_R$, where $Y_P < Y_R$. For tractability we assume that for both types utility equals the level of disposable income, $U_i = Y_i$, $i = P, R$. Total income is denoted by $Y$. Let $\gamma > \frac{1}{2}$ denote the proportion of the income of the rich and $1-\gamma < \frac{1}{2}$ the proportion of the income of the poor. The parameter $\gamma$ measures the degree of income inequality between rich and poor; an increase in
inequality implies an increase in $\gamma$. We may then write $Y_R = \gamma Y$ and $Y_P = (1-\gamma)Y$. Both the poor and the rich elite are modelled as single players.\footnote{In so doing we abstract from the collective action problem of each group, (Olson, 1965), that is, the incentive of each individual member of the groups to free-ride on the rest of the group, since the collective effort is costly for each individual but beneficial for the group. Moore (1995) reviews four solutions to the collective action problem. (a) Selective incentives, where only those who participate in the collective effort receive rewards, like appointment to office and other rents. (b) Efficacy, where individuals miscalculate the impact of their contribution and believe that they are efficacious, something that may be brought from the rhetoric and / or actions of an inspirational leader. (c) Contracts and conventions which bind individuals and transform the prisoner’s dilemma game of collective action to an assurance game, where mutual cooperation secures higher payoffs. (d) Tipping point, according to which as the number of participants into collective rises and crosses a certain threshold, it becomes more likely to succeed. See also Apolte (2012) and Olsson–Yaouzis, (2012) for more recent analyses.} 

In a quest for benefits the majority of poor Athenians may decide to go to war against a foreign power. The probability of winning the war is $\Pi$. Both the rich and the poor pay for the costs of the war, but the poor are assumed to benefit disproportionately more than the rich. However, instead of paying for war, the rich may choose to mount a coup ($stasis$) against the democracy, whose probability of success is $Q$. If oligarchy is established, no wars are fought and no taxes are collected from the rich. However, if the attack against the democracy fails, the poor punish the elite by confiscating their properties. Stylistically, focusing on the rich, the sequence of the events is as follows – see also the game tree of Figure 1. The rich choose:

1. Either to abide by the democracy, pay war taxes decided by the majority of poor citizens, in which case there are two possible outcomes:
   a. Democratic Athens wins the war with probability $\Pi$ and payoffs are realized
   b. Democratic Athens loses the war with probability $1-\Pi$ and payoffs are realized

2. Or to attack the democracy in which case there are two possible outcomes:
   a. Oligarchy is established with probability $Q$, redistributive taxation from the rich to the poor ceases, and both the rich and the poor pay a subordination levy to the foreign power.
   b. Democracy survives with probability $1-Q$ and the incomes of the rich are confiscated by the poor.

The game is solved by backward induction starting at the end of the game.
4.1 Payoff under democracy

Athens may go to war against a foreign power, treated as a single agent and indexed by $E$, and so that $Y_E$ denotes her income and so on. Let $G$ denote the victor’s gains from war; the loser is assumed to get nothing; for convenience we express $G$ as a positive fraction $g$ of $Y$ and write $G = gY$. Fighting involves two kinds of costs. First, war destroys a fraction $\phi$ of the income of each of the warring sides, $Y$ and $Y_E$. Second, each side incurs costs for military equipment and personnel, denoted by $X$ for Athens and $X_E$ for Athens’ enemy. These expenditures are financed by proportional income taxes on $Y$ and $Y_E$ at rates $t$ and $t_E$ respectively. Thus, the war expenditures for the rich and poor Athenians and Athens’ enemy are $tY_R$, $tY_P$ and $t_EY_E$ respectively. Let $\delta$ and $1-\delta$ denote the fractions of war gains obtained by the rich and the poor Athenians respectively, where $0 \leq \delta \leq 1$. It is further assumed that the share of war gains of the rich is smaller than their share of domestic income, $\gamma > \delta$, and thus the other way around for the poor, that is, $1-\delta > 1-\gamma$. In other words, materially the poor benefit relatively more than the rich from a victorious campaign. With $\Pi$ denoting the probability that Athens wins the war, the expected utilities of the rich and poor Athenians and Athens’ enemy are then respectively written as

\[ U_R = tY_R + (1-\Pi)gY, \]
\[ U_P = tY_P + \Pi gY, \]
\[ U_E = t_EY_E, \]
Note that, since expenditure to finance the war is committed before the outcome of the war is known, the former depend on the level of gross income rather than the income that survives the war destruction. As per standard practice, the probability that Athens wins the war is assumed to depend positively on the Athenian expenditure to fight and negatively on her enemy’s expenditure (Tullock, 1980; Garfinkel and Skaperdas, 2007), so that \( \Pi = \frac{t(Y_R + Y_P)}{t(Y_R + Y_P) + t_E Y_E} \), or upon substitution

\[
\Pi = \frac{t}{t + t_E}
\]

Under democracy it is the majority of the poor who decide the tax rate that then determines the war expenditures to be paid by them and the rich Athenians. Hence, in the present setting the tax rate \( t \) is the instrument of choice to maximize the expected benefit of the poor, and \( t_E \) its analogue for Athens’ enemy. As usual, the conflict game between Athens and her enemy is solved by backward induction starting at the end of the game. When the rich attack the democracy, the Nash equilibrium is obtained by the poor maximizing (1.1) with respect to \( t \) subject to (2) treating \( t_E \) as given, and Athens’ enemy maximizing (1.3) with respect to \( t_E \) subject to (2) treating \( t \) as given. Solving we obtain the following equilibrium values of the probability that Athens wins the war and the Athenian tax rate

\[
\Pi = \frac{1-\delta}{2-\delta-\gamma} \quad t = \frac{(1-\phi)g(1-\delta)^2}{(2-\delta-\gamma)^2}
\]

The latter can be written more compactly as \( t = g(1-\phi)\Pi^2 \). It is immediately observed that \( t \) varies proportionately with \( \gamma \) and inversely with \( \delta \). That is, an increase in the share of income accruing to the rich increases inequality leading to an increase in the income tax rate voted by the poor majority. On the other hand, an increase in the share of war gain taken by the poor (an increase in \( 1-\delta \), induces them to invest more tax revenue to win the war. Substituting the above into equations (1.1) and (1.2) we obtain that the war payoffs for the rich and poor Athenians are respectively

\[
U_p^W = Y_p(1-\phi) + \Pi(1-\delta)gY(1-\phi) - tY_p
\]

\[
U_R^W = Y_R(1-\phi) + \Pi\delta gY(1-\phi) - tY_R
\]

\[
U_E^W = Y_E(1-\phi) + (1-\Pi)G(1-\phi) - t_E Y_E
\]

\[
(1.1)
\]

\[
(1.2)
\]

\[
(1.3)
\]

\[12\] By differentiating \( \frac{dt}{dy} = \frac{2(1-\phi)g(1-\delta)^2}{(2-\delta-\gamma)^3} > 0 \) and \( \frac{dt}{d\delta} = -\frac{2(1-\phi)g(2-\delta-\gamma)(1-\delta)(1-\gamma)}{(2-\delta-\gamma)^3} < 0 \]
The latter is positive when \( \gamma > \frac{g(1-\delta)(\delta^2-2\delta+\gamma)}{(2-\delta-\gamma)^2} > 0 \), which it is assumed that always holds. The poor choose to go to war when \( V_p^w > (1-\gamma)Y \), which requires

\[
\phi < \phi_p \equiv \frac{g(1-\delta)^3}{g(1-\delta)^3+(1-\gamma)(2-\delta-\gamma)^2}
\]

On the other hand, the rich choose to go to war when \( V_p^w > \gamma Y \), which is satisfied when

\[
\phi < \phi_R \equiv \frac{-g(1-\delta)(\delta^2-2\delta+\gamma)}{\gamma(2-\delta-\gamma)^2-g(1-\delta)(\delta^2-2\delta+\gamma)}
\]

For concreteness we assume that both the numerator and the denominator of (5.2) are positive, which implies \( \delta^2 - 2\delta + \gamma < 0 \), and therefore \( 1 - \sqrt{1 - \gamma} < \delta < 1 + \sqrt{1 - \gamma} \). The latter guarantees that \( \phi_R > 0 \). Going to war is worth only if the destruction from fighting is less than a critical value. However, rich and poor are characterised by different critical values \( \phi_R > 0 \) and \( \phi_p > 0 \). Subtracting (5.2) from (5.1) and denoting the respective denominators by \( x \) and \( w \) we obtain

\[
\phi_p - \phi_R = (\gamma - \delta) \frac{g(1-\delta)(2-\delta-\gamma)^3}{xw} > 0
\]

That is, by virtue of the \( \gamma > \delta \) condition, the critical value of war destruction at which the poor decide to go to war exceeds that of the rich. We then have

1. For \( \phi < \phi_R < \phi_p \) both the rich and the poor choose to go to war
2. For \( \phi_R < \phi < \phi_p \) the rich choose peace, the poor chose to go to war
3. For \( \phi_R < \phi_p < \phi \) both the rich and the poor choose peace
The second row above demonstrates that there is a range of parameter values such that the poor choose war while the rich prefer peace. Since under democracy the majority of the poor citizens decide policy, the polity under consideration goes to war. Fighting a war offers a mechanism of redistribution in favour of the poor. Rich and poor contribute proportionately to their means towards the cost of war, but the poor obtain a higher proportion of war gains, if Athens is victorious. In addition, the greater the value of $\phi_P$, the more likely is that the poor choose war. On the contrary, the lower the value of $\phi_R$, the more likely it becomes that the rich are against war. Figure 2 illustrates graphically what is involved. The downward sloping lines plot the payoffs of the poor and the rich from war, $V_R^W$ and $V_P^W$ of equations (6.1) and (6.2) against the destruction from war $\phi$. The horizontal lines $(1-\gamma)Y$ and $\gamma Y$ show the corresponding utilities in peace. The critical values $\phi_R$ and $\phi_P$ correspond to the intersection points of the expected utility from war and peace for rich, $A$, and poor, $B$, respectively. The rich choose peace for values of $\phi$ to the right of $\phi_R$, while the poor choose war for values of $\phi$ to the left of $\phi_P$. When $\phi_P$ rises, so does the likelihood that the poor choose war.

Checking the comparative static properties of $\phi_P$, and upon denoting the denominator of $\phi_P$ by $x$, recalling that $\delta < 1$ and $\gamma < 1$, we find
\[
\frac{d\phi_P}{dg} = \frac{1}{x^2}((1 - \gamma)(2 - \delta - \gamma)^2 + g(1 - \delta)^3(1 - (1 - \delta)^3)) > 0
\] (6.1)

\[
\frac{d\phi_P}{d\delta} = \frac{1}{x^2}(1 - \delta)^2(1 - \gamma)(2 - \delta - \gamma)(3\gamma + \delta - 4) < 0
\] (6.2)

\[
\frac{d\phi_P}{d\gamma} = \frac{1}{x^2}(2 - \delta - \gamma)(4 - 3\gamma - \delta) > 0
\] (6.3)

That is, the higher the gain from war, \(g\), the share of war gains taken by the poor, \(\delta\), and the lower the domestic share of the income of the poor Athenians, \(\gamma\), the larger the critical value of \(\phi_P\); accordingly, other things being equal, the more likely that the poor choose to go to war.

4.2 Payoff under oligarchy

Instead of contributing to the war effort, the rich elite may decide to attack the democracy; if it succeeds, it establishes an oligarchy that disenfranchises the poor, suspends military campaigns, and sets the tax rate at \(t_R = 0\); that is, by assumption the oligarchy does not pursue war. The outcome of the attack against the democracy is uncertain, while its costs are certain. The historical record described above revealed that the elite attempted to overthrow the democracy after Athens lost a major conflict, the Peloponnesian War in 404 and the Lamian War in 322. This indicates that the oligarchic coup took place when the supporters of democracy had been defeated and were already vulnerable, while the foreign victor also backed the oligarchy. We model this aspect of the conflict between rich and poor Athenians by assuming that the probability of a successful oligarchic coup, \(Q\), has two components. The first follows is the familiar specification that success in the conflict depends positively on the expenditure of the rich, \(Z_R\), and negatively on that of the poor, \(Z_P\). The second component is simply a positive advantage \(\alpha\) that the rich enjoy against the poor. We may then write

\[
Q = \frac{Z_R}{Z_R + Z_P} + \alpha
\] (7)

Anderton and Carter (2009) refer to the latter specification as first–strike advantage. We assume that \(\alpha > 0\) but not as large as to render \(Q > 1\). Similarly to a war against a foreign power, it is assumed that the civil conflict between rich and poor also destroys a fraction \(\kappa\), \(0 \leq \kappa < 1\), of income, where no particular assumption is made about the relative values of \(\kappa\) and \(\phi\). It is further assumed that if the attack against the democracy fails, an event which carries a probability of \(1 - Q\), the poor punish the elite by expropriating their incomes. The expected utility of the rich from attacking the democracy is
\[ U_R^O = QY_R (1 - \kappa) - Z_R \]  
(8.1)

On the other hand, the expected utility of the poor is

\[ U_P^O = QY_P (1 - \kappa) + (1 - Q)(Y_P + Y_R)(1 - \kappa) - Z_P \]  
(8.2)

When the rich attack the democracy, the Nash equilibrium is obtained by the rich maximizing (8.1) with respect to \( Z_R \) subject to (7) treating \( Z_P \) as given, and the poor maximizing (8.2) with respect to \( Z_P \) subject to (7) treating \( Z_R \) as given. Solving we obtain the following equilibrium values of expenditures for fighting and probability that the rich overthrow the democracy

\[ Z_R = \frac{rY(1-\kappa)}{4} = Z_P \quad \quad Q = \frac{1}{2} + \alpha \]  
(9)

Substituting the above into the expected utility functions (8.1) and (8.2) we derive the equilibrium payoffs for the rich and the poor respectively

\[ V_P^O = (1 - \kappa)Y \left[ 1 - \gamma \left( \alpha + \frac{3}{4} \right) \right] \]  
(10.1)

\[ V_R^O = \gamma (1 - \kappa)Y \left( \frac{1}{4} + \alpha \right) \]  
(10.2)

Whether or not the rich choose to attack the democracy depends on whether or not the difference between the payoffs described by (10.2) and (5.2) is positive; if it is zero they are indifferent in which case we assume that they abide by it. Substituting we derive that \( V_R^O - V_R^D > 0 \) when

\[ \phi > 1 - \frac{(1-\kappa)(\frac{1}{4}+\alpha)\gamma(2-\delta-\gamma)^2}{\gamma(2-\delta-\gamma)^2-g(1-\delta)(\delta^2-2\delta+\gamma)} \equiv f_R \]  
(11)

That is, if the destruction from a war against a foreign power exceeds the critical value \( f_R \), the rich are better off in an ex ante sense by attacking the democracy to establish oligarchy. The lower the value of \( f_R \), the more likely is that the rich will attack the democracy. Graphically this is illustrated by the \( V_R^O \) line in Figure 2 which crosses the \( V_R^D \) line at point C. Payoffs from oligarchy are higher for values of \( \phi \) to the right of \( f_R \) and vice versa.

For concreteness, it is also assumed that the poor are always better off with democracy–cum–war, so that they will never start a fight to confiscate the income of the rich (where the rich enjoy
the first strike advantage), that is, \( V_p^W - V_p^O > 0 \). After substitution the latter implies that the following condition is always satisfied

\[
f_p \equiv 1 - (1 - \kappa) \frac{(1 - \gamma (\alpha + \frac{1}{2})) (2 - \delta - \gamma)^2}{(1 - \gamma)(2 - \delta - \gamma)^2 + g(1 - \delta)^2} > \phi \tag{12}\]

That is, the destruction from a war against a foreign power is lower than the critical value \( f_p \). In Figure 2 this is shown by points to the left of \( f_p \) where the payoff from war, line \( V_p^W \), lies above that from oligarchy, line \( V_p^O \).

In sum, it has been shown that there is a subgame perfect equilibrium in the game described in Figure 1 and is such that

- If \( \phi < f_R \), the rich do not challenge the democracy
- If \( \phi > f_R \), the rich challenge the democracy and the democracy is overthrown with probability \( Q = \frac{1}{2} + \alpha \).

Given the value of \( \phi \), ceteris paribus, factors that decrease \( f_R \) increase the likelihood that the rich attack the democracy. Checking the comparative static properties of the critical value of \( f_R \) in (11), denoting again \( w \equiv \gamma (2 - \delta - \gamma)^2 - g(1 - \delta)(\delta^2 - 2\delta + \gamma) > 0 \) and recalling that by assumption \( \delta^2 - 2\delta + \gamma < 0 \), we have

\[
\frac{df_R}{d\alpha} = - (1 - \kappa) \gamma (2 - \delta - \gamma)^2 \left( \frac{1}{w} \right) < 0 \tag{13.1}
\]

\[
\frac{df_R}{d\kappa} = \gamma \left( \alpha + \frac{1}{4} \right) (2 - \delta - \gamma)^2 \left( \frac{1}{w} \right) > 0 \tag{13.2}
\]

\[
\frac{df_R}{dg} = - \gamma (1 - \kappa) \left( \alpha + \frac{1}{4} \right) (2 - \delta - \gamma) (1 - \delta) (\delta^2 - 2\delta + \gamma) \left( \frac{1}{w} \right) > 0 \tag{13.3}
\]

\[
\frac{df_R}{d\gamma} = (1 - \kappa) \left( \alpha + \frac{1}{4} \right) (2 - \delta - \gamma) g(1 - \delta) \left( \frac{1}{w^2} \right)
\]

\[
\{2\gamma^2 - 3\delta(2 - \delta)\gamma + \delta(2 - \delta)^2\} \tag{13.4}
\]

The roots of the bracketed quadratic expression are given by \( \gamma = \frac{2 - \delta}{4} \left( 3\delta \pm \sqrt{\delta(9\delta - 8)} \right) \). It then follows that, where \( \gamma_1 = \frac{2 - \delta}{4} \left( 3\delta - \sqrt{\delta(9\delta - 8)} \right) \) and \( \gamma_2 = \frac{2 - \delta}{4} \left( 3\delta + \sqrt{\delta(9\delta - 8)} \right) \)

For \( \delta < \frac{8}{9} \), then \( \frac{df_R}{d\gamma} < 0 \)
For $1 > \delta > \frac{8}{9}$, when $0 < \gamma_1 < \gamma$, or $\gamma_2 < \gamma < 1$ then \( \frac{df_R}{d\gamma} < 0 \)

when $\gamma_1 < \gamma < \gamma_2$ then \( \frac{df_R}{d\gamma} > 0 \)

Of the above the former, $\delta < \frac{9}{9}$, may be considered as the most plausible case because it implies that the poor get more than one ninth of war gains.

\[
\frac{df_R}{d\delta} = (1 - \kappa) \left( \alpha + \frac{1}{4} \right) g (2 - \delta - \gamma) \left( \frac{1}{w^2} \right) \times \\
\{ (\delta^2 - 2\delta + \gamma) (\delta - \gamma) + 2(1 - \delta)^2 (2 - \delta - \gamma) \} = ? \quad (13.5)
\]

That is, the critical value of $f_R$ is lower and therefore the rich are more likely to launch a coup:

(a) the higher the strike advantage of the rich $\alpha$; (b) the lower the destruction from civil war $\kappa$;

(c) the smaller the relative size of war gains $g$ (since the rich benefit little from a costly war whose outcome is uncertain); and (d) the greater the domestic inequality $\gamma$ (subject to the qualifications noted in 13.5).

On the other hand, the effect of an increase in the share of war gain of the rich $\delta$ is ambiguous at this level of generality.

5 Why the Athenian democracy fell?

The model explored in the present study considered Athenian democratic politics as a contest for income redistribution between the rich elite and the poor majority. Unlike standard models where redistribution from the rich to the poor is carried out through taxes and public expenditures for transfer and public provision of goods and services, the model focused on redistribution resulting from international conflict. By virtue of higher taxes the rich bear a larger cost of financing the war, that if won confers greater relative benefits to the poor. The rich may respond to such redistribution by going into battle against majority rule; if successful, they disenfranchise the poor and end international wars. The model captures several aspects of the Athenian democracy.

As already described in Section 2 the distribution of wealth in Athens was unequal and oligarchic elements assaulted the democracy in 411 and 404 unsuccessfully, but were more effective in 322. In all cases the attack took place after the Athenian navy had suffered devastating defeats. The navy was not only a source of employment for the thetes, the poorer class of Athenians, but also the principal attacking force of Athenian military expeditions. It may be presumed, that had democracy prevailed after the naval setbacks, the poor majority
would have voted for high tax payments to support those who had lost their main source of income as well as to rebuild the fleet, something that would have hurt the interests of the rich; (this prediction follows directly from Acemoglu & Robinson, 2006). To some extent this is what was observed after the Peloponnesian War when payment for attending the assembly meetings was introduced. Formally, the naval defeat implied a sufficiently large deterioration of the domestic distribution of income that the benefits for the rich from oligarchy would be worth to challenge the democracy. In addition, the economic and military weakening of the demos after a serious military defeat presented an apt opportunity to attack the democracy. However, there was no guarantee that the assault would succeed. Twice the democrats were able to restore the rule of the demos and rebuild the navy. In this light it can be argued that military defeat facilitated but did not directly cause the end of the Athenian democracy; it was probably necessary to undermine the ability of democracy to defend itself against the domestic oligarchic elements, but not a sufficient to end it.

It bears noting that the association between major military defeat and disenfranchisement runs opposite to the claim of Ticchi and Vindigni (2009) that in the representative democracies of 19th and 20th century, the elites often extended the franchise voluntarily during or after major wars. The reason was that they needed to offer a credible commitment to income redistribution policies in order to induce men to fight and probably women to replace them in the workplace. This apparent contradiction is however explained by the different underlying assumption of the models. Ticchi and Vindigni assume that both the elites and the disenfranchised poor agree on the benefits of repelling the external enemy, while the present model focuses on opposing attitudes of the elite and the poor towards the enemy. On the other hand, the link military defeat and disenfranchisement is consistent with the causality of the franchise extension proposed by Lizzeri and Persico (2004) – the need to finance public goods leads the elites to extend voting rights. Specifically, when the Macedonians beat Athens the need for keeping a strong Athenian military force and pay for it largely disappeared. The oligarchic elements could then remove the political rights of the demos in exchange for not calling them for defence duty. Again this reasoning relies on different interests of the elite and the poor vis–à–vis the foreign power.

We close this section by noting two important structural features of ancient Athens, implicit so far in the model, which in relation with conflicts over income inequality played a significant part in the fall of the democracy. The first relates to the economic structure. An inherent weakness of the Athenian democracy was that its economic basis remained
agricultural, where land, instead of industrial or human capital, is a dominant component of wealth. In a democracy the poor improve their welfare by taxing the rich. As the supply of land is inelastic and therefore easier to tax than industrial or human capital, democracy and the consequent redistribution from the rich to the poor majority is bitterly resisted by landowners and is therefore more vulnerable in an economy centred on agriculture (see also the discussion of Acemoglu and Robinson, 2006, chapter 9). Thus oligarchy which would cease redistribution became more attractive to the rich.\(^{13}\)

The second feature relates to the attributes of direct democracy that make it simultaneously attractive and vulnerable. The Athenian democracy lacked important defence mechanisms that are present in contemporary representative government because it was direct democracy. First, party competition offers a degree of protection to representative democracy that is missing from direct democracy without political parties. When unhappy, voters vent their anger to the party in office, rather than the system of government. In so doing, party competition adds to the stability of democratic government (Lipset and Rokkan, 1967). On the contrary, in the direct democracy of Athens, those hurt by policies voted by the demos turned against the rule of the demos. Second, it lacked the organisations, political parties, trade unions, civic associations and other pressure groups, that try to influence and the political decision making system to their benefit making sure in the process that the democracy is defended against usurpers in order to continue to take advantage from it. The 322 military defeat presented an opportunity to its opponents to overcome their collective action problem and attack it. Any group of individuals finds difficult to begin solving its collection action problem and even harder to sustain a solution; collective action costs vary through time. The 322 defeat presented the oligarchic group with the window of opportunity to overcome its collective action problem. In this light, the defeat is not the fundamental cause of democracy’s demise, but the event that enabled deeper factors to prevail.

### 6 Conclusions

In accordance with political economy models of the emergence of democracy, the present paper started from the premise that whether democracy persists or is deposed and replaced by an oligarchy depends on the calculus of the cost of conflict and expected benefits from one type of regime or another by the leading players. What distinguishes the present work from

\(^{13}\) As already mentioned this was compounded by a redistribution system of transfer payments targeted to the poor that made the system highly redistributive.
previous studies is the examination of the fall of an established democracy, namely, the direct democracy of ancient Athens that arose in 508, took shape in the first half of the 5th century, became a dominant naval power, fought a multitude of external wars some successfully others with catastrophic result, underwent a variety of institutional changes, and was beaten by Macedon in 322. The paper attributed the demise of the Athenian democracy to a combination of military defeat by Macedon, an external enemy, and assault by domestic oligarchs whose economic interests were better served by a regime of restricted franchise and lower taxes, even under the suzerainty of the external power.

In a background of conflicts over income distribution the paper unravelled a sequence where due to war defeat loss of employment opportunities was followed by loss of economic power and political standing, leading to disenfranchisement and consequently the fall of democracy. None of those was preordained, or inevitable, but it took considerable long time for democracy to re–emerge and in a fundamentally different form.

References


