War for profit: macroculture, corsairs and partnership companies

Kyriazis, Nicholas and Metaxas, Theodore

U. of Thessaly, Department of Economics, Greece

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NICHOLAS KYRIAZIS

Professor

Department of Economics, University of Thessaly, Greece, Korai Str.43, 38333,

Volos, email: nkyr@ergoman.gr

THEODORE METAXAS

Lecturer

Department of Economics, University of Thessaly, Greece, Korai Str.43, 38333,

Volos, tel: ++30 24210 74917, fax: ++30 24210 74772

email: metaxas@econ.uth.gr

(Corresponding Author)

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Abstract

In the present paper we propose that in states with relatively weak central authorities, decision makers had to develop market oriented organisation solutions to successfully face a grave external threat, and these solutions proved to be efficient.

Using an interdisciplinary approach that combines institutional theory, history and strategy, we analyse the concept of macroculture and then a case study, the use of corsairs (privateers) by England and the United Provinces (Dutch Republic) in the late 16th and early 17th centuries. We also propose that the development of partnership companies went hand in hand for commercial and military purposes.

Lastly, we suggest that a market led decentralised type of war as practiced by English and Dutch privateers proved to be economically efficient and superior to the centrally planed war operations of the Spanish empire.

Key words: Path dependence and change, institutions, partnership companies, corsairs, 16th-17th century England and United Provinces (Dutch Republic).
JEL Classification: H7, N23, N43, P16.

Introduction

In the present paper we first outline an extended model of path-dependence and institutional change that analyses the emergence of new institutions in particular historical circumstances, and the emergence of macrocultures.

When a state faces serious external challenges and there exists no strong central authority then market solutions are more likely to emerge in order to face the challenge successfully. In the next section we analyse such particular historical contexts, the threat posed to English and Dutch independence during the late 16th century by Spain. We trace the emergence of a market solution in the form of partnership companies to finance the English and Dutch corsairs' attacks on Spanish commerce, which proved to be a very efficient way of battling a stronger enemy by concentrating on his vulnerable point.

A model of path dependence and change

Since David[1] and Arthur[2] the issue of path dependence has raised considerable interest. A more recent area of research is the issue of the causes that may break path-dependence and lead an economy towards a new, more efficient (in the sense of welfare and growth-promoting) path.

[1] David A. Paul, "Clio and the economics of Qwerty", American Economic Review 75, 2 (1985):332-337; David A. Paul, "Why are Institutions the carriers of history? Path dependence and the evolution of conventions, organisations and institutions", Structural Change and Economic Dynamics 5, 2 (1994):205-220.

[2] Arthur W. Brian, "Competing Technologies, Increasing Returns and Lock-in by Historical Events", Economic Journal, 394 (1989):116-131.

In previous studies has been presented a general model of path dependence and change[3] and a further development taking into account bounded rationality as a cause that explains path dependence[4].

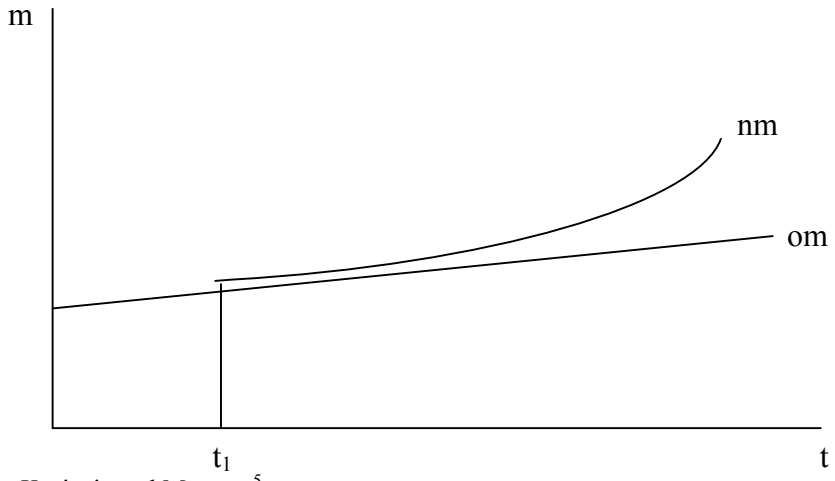
The main points of the model can be summarised as: The successful adaptation of a country to a serious external shock brings about a break of path-dependence and introduces a new, more efficient path. The going over to the new path is faster than in cases of no external threat, where a change is possible (but not necessary) but more gradual and lengthy in time. Along the new path, new institutions and organisations are developed, which represent substantial new investments both in knowledge and financial means. These entail during a first period substantial new costs for the decision makers, linked to increased gains in welfare. During subsequent periods, these costs represent sunk costs (since they have already been undertaken during the first period), and these, together with the perception by the decision makers of higher welfare along the new path prevent the economy in reverting to the old path, bringing about thus a new path-dependence along the new path.

In figure 1 the path dependence and change of macrocultures is shown:

[3] Kyriazis Nicholas, "Seapower and socio-economic change", Theory and Society 35(2006):71-108; Halkos George and Kyriazis Nicholas, "A Naval Revolution and Institutional Change: The Case of the United Provinces" European Journal of Law and Economics 19 (2005): 41-68.

[4] Kyriazis Nicholas, and Metaxas Theodore, "Bounded Rationality and Institutional Change", Evolutionary and Institutional Economics Review 7,1 (2010):1-19;
The idea of bounded rationality has been advanced by Simon (1982 and 1991) and has been proposed by Frier and Kehoe (2007) to explain historical path dependence. Akerlof and Schiller (2009) have developed ideas on somewhat parallel lines

Figure 1: Path dependence and change of macrocultures



Source: Kyriazis and Metaxas[5]

'*om*' signifies the 'old macroculture', a system of norms, values, customs, etc., that characterises the economic, social and political field of a state and associated institutions and organisations.

***'nm'* signifies the emerging new macroculture, where new norms, values, customs, etc., are being created, developed and diffused, so that over time a break with the old path macroculture is accomplished, and the state follows a new path.**

During each period the state follows the new path *nm,* the probability of staying into the new path increases, and the probability of returning to the old path decreases, as given by Table 1, because during each subsequent step along the new path, the various elements of the new macroculture are being mutually reinforced and integrated into a whole.

Table 1: Decision tree probabilities

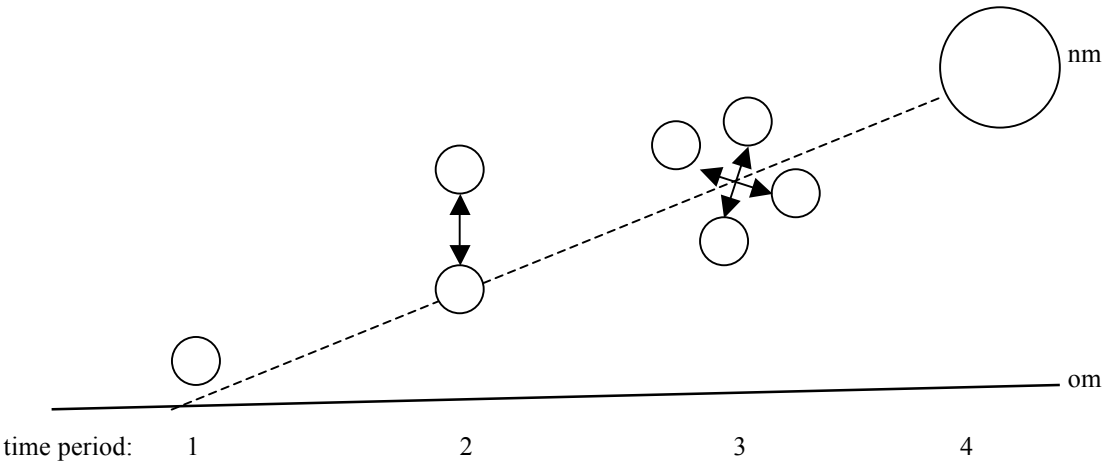
Time period	1	2	…	t
nm	p_{n1}	$p_{n2} = (p_{n2} / p_{n1})$	…	$p_{nt} = (p_{nt} / p_{nt-1})$
om	$1- p_{n1}$	$1- p_{n2}$	…	$1- p_{nt}$

[5] Kyriazis Nicholas and Metaxas Theodore (2010) *idid*

With p_{n1} …. p_{nt} conditional probabilities depending on the result of the previous period. It is clear that over time the probability of going back to the old macroculture (1- p_{nt}) converges towards zero.

In Figure 2, we represent the decision tree, where the different elements of a macroculture (eg. religion, warfare, economy, politics etc.), are gradually being integrated into a new whole:

Figure 2: Decision tree and integration of various elements of a macroculture



The cycles represent the various elements of a new macroculture, that emerge in one sector at time period 1, and reinforced through diffusion in other sectors at periods 2 and 3, and have been intergraded into a new mutually supporting macroculture at period 4.

The model can be described by two simple equations:

$$1. \quad m = a + om + nm + e^{g_t * t}$$

with m = macroculture
om = the old macroculture
nm = the new macroculture
which predominates over time if g_t is positive.

$$2. \; g_t = f(g_t, d)$$

is the rate of change, depending on the creation of new elements of a macroculture and their speed of diffusion (adaptation by other sectors) (d). The new macroculture could first have manifested itself in the maritime sector (in warfare and overseas

trade). Values, norms, institutions and organisation forms created here (as for example joint-stock companies) were then diffused and taken over by other sectors, thus bringing about a new macroculture corresponding to a new path.

At time period 1, the transformation begins in the maritime sector, both for trade in England and the UP though the emergence of the first big joint-stock companies, the EIC and VOC to capture trade, and especially spices trade, with the East, and war against the Spanish – Portuguese empire. Once the functioning of the joint-stock companies is deepened and well understood in these fields, creating a particular set of values and norms among its participants (merchants share – holders, captains and officers of ships and naval stations on the trading routes, like Cape Town and Bataria for the Dutch, naval crews and solders of the companies, but also people working in the harbours and merchants and employees in 'industries' having linkages to the companies, like alimentation, sail making, etc), this form of institutional and organisational solution is being different into the other sectors of the economy, like textiles, ceramics, sawmills etc, in the case of UP[6]

The particular values and norms that emerged in the maritime sector were trust (both among the cooperating merchants, but also in general among them their officers and the crews, who in the case of privateering enterprises had a share in profit and thus a common purpose), self confidence and self reliance (achieved through repeated successful enterprises) but also a first sence of fairness and equality, even strong religious beliefs (perhaps a protestant ethic according to Weber)[7]. This sence was essential for attracting and retaining crews for the privateering enterprises. Were it not the case, then crews would increasingly avoid serving and thus privateering

[6] See for details, Kyriazis (2006) idid, Halkos and Kyriazis (2005) and de Vires and van der Woude (1997)

[7] Weber Max. Economy and Society, 1899. English edition by G. Roth and C. Wittich, Berkeley, UP 1978

enterprises but also long-term trading would be reduced. Thus, these new norms and values especially trust, reduced transaction costs, and in this way helped also promote economic development.

Such a set of norms and values promote also a community of interests. People in maritime states, throughout history, beginning from Ancient Athens, seem to have understood that their direct or indirect participation in this effort brought advantages (although of course in different degrees) to everyone involved, and thus they were willing to support this effort.

We now develop the model in order to analyse the emergence of two newcomers in the contest for world trade and political dominance, England and the United Provinces (Dutch Republic). We propose that in the particular context of the late 16th century – beginning of the 17th, the relative weakness of the central authority in the two states proved to be an advantage, because it forced them to find market solutions to fill the gap of the missing strong central authority.

In states with strong central power (like imperial Spain, or the Indian Mughal, the Chinese Ming, or the Ottoman empire) the central power decides, coordinates and retains most of the profits or rents (in the form of taxes, custom duties etc.). In Spain for example, the state itself organised most expeditions to the New World (like Columbus expedition, to whom crews and ships were provided by Queen Isabella and King Ferdinand) and exploited the new lands discovered. The same happened half a century earlier for Portugal, where Prince Henri the Navigator organised the voyages of exploration and discoveries on behalf of the state[8]. This is of course not to deny that commercial interests existed both in Spain and Portugal, but they were subordinated to the central authority.

[8] Vergé-Franceschi M. Henri le Navigateur. Editions du Félin, 1998.

Even stronger was the imposition of the central authority in the form of laws, practices, taxes etc. in the three Asian empires, to the long-term detriment of their development. The Mughal emperors for example imposed a system of local governors, chosen and appointed by them, who governed the region given to them for a limited period of years (usually no longer than three) and were then shifted to another region. At the time of their death, their fortunes did not go to their heirs, but to the emperor himself. This system was designed to prevent the local governors to form a permanent power basis in a region, and thus revolt and challenge central authority. But the long-term effect was to lead to high consumption and almost no investment in the regions, since the governors, staying only for short periods and not being allowed to pass the fruits of their investment to their heirs, did not have incentives to invest.

In agriculture, in general non-contiguous pieces of land, called jagirs, were granted for short periods, usually for only about three years, again in order to prevent nobles establishing a power base in a particular region. Obviously again, the short tenures were an incentive for the holders to squeeze as much as possible out of their holdings, without consideration of the long-term effects of such policies and discouraged any investment in improvements. Jagirs were not inherited. As Goldsmith[9] remarks *"A system less likely to lead to an increase in agricultural productivity would be difficult to devise"*. The emperor had in addition a substantial income from the escheat of all estates left by nobles or by wealthy commoners, traders etc., as he chose.

[9] Goldsmith W. Raymond, Pre-modern Financial Systems, Cambridge UP, (Cambridge, 1987), pp.118

In a situation with no established protection of property rights, (as was the case in the three Asian empires) other decision makers, like local traders, operated under a high risk and uncertainty situation that was also not conductive to investment[10].

This situation was understood and deplored already in 1580 by an Ottoman cartographer, who wrote: *"It is strange and sad that a group of infidels have achieved such strength that they can travel in West and East… while the Ottoman empire, which lies at half the distance (compared to them) to India, has not undertaken the least effort to conquer India…"* [11].

In states were a strong central authority did not exist for historical reasons and commercial interests were much stronger, or even predominated, they had to find new solutions to fill the gap and face a strong external challenge. The solution for the organisation and financing of overseas expeditions, either to capture trade, in particular the very lucrative spices one, or for military reasons, was to develop and adapt new organisation forms, in particular, the joint-stock company. In a recent paper[12] has been analysed the development of the joint-stock company in relation to the spices trade and their culmination to the two first prototype companies in their respective stock exchanges, the English and the Dutch East India companies (the EIC of 1600 and the VOC of 1602). The present paper analyses the development of market organisation forms, in the form of partnership companies, this time for military purposes.

But first, let us analyse briefly our statement that 16th century England and the United Provinces lacked strong central authorities. By the end of the 15th century,

[10] For a more detailed analysis of this point and references, see Kennedy (1988, p. 4-14) and Kyriazis (2006), and for Mughal India, Spear (1965).

[11] Growley Roger, Empires of the Sea. Faber and Faber (eds) (Paris, 2008).

[12] Kyriazis Nicholas, and Metaxas Theodore (2010) *ibid*

England had lost the Hundred Years War against France, and had gone through the Civil War of the Roses that culminated in the establishment of a new dynasty, the Tudors after the victory of Henry VII at Bosworth in 1485. Henry VII and his heirs, Henry VIII, and his daughters Mary and Elisabeth, were thus a new dynasty and had to take into account the interests of the survivors of the old nobility, but also of commercial interests of cities, new "low" nobility of the country etc. They had to do so even more due to threats to their dynastic claims by other contestants (like queen Mary of Scotland) and religious cleavages. Also, England had a long tradition of insurrection etc. that limited central power, most notably the insurrection of the nobles against King John that forced him to grant the Magna Carta in 1215 which can be seen as the first constitution of a modern European state (if are accept that some ancient states like Athens and Rome had some kind of constitution, called "politeia").

Another indication of the relative weakness of the central state in England, is the fact that according to contemporary claims[13] England was the least heavily imposed and least indebted country in Europe, where according to one estimate[14] total revenue of the public sector reached less than 5% of GDP. The queen had two important sources of revenue within her power, crown lands and customs, while she depended on Parliament for the "tenth" and "fifteenth" assessed every three years on laity and clergy and "subsidies", granted under extraordinary conditions, mainly war.

Even more, no strong central authority existed in the United Provinces (Dutch Republic), which, up to 1568 were geographically part of the Spanish Netherlands and had revolted against them from a mix of political, national, commercial and religious causes. Although the UP were formally recognized as an independent nation only at

[13] Palliser M. David, The Era of Elizabeth. Longmans Publishers, (London, 1983), pp.12

[14] Goldsmith W. Raymond. 1987, ibid, pp.19

the treaties of Westphalia and Muenster of 1648, the majority of the land was already independent of Spanish rule by the end of the 16th century.

The Dutch Republic was formed by seven United Provinces, in which again 58 cities predominated, with Amsterdam being the most important one[15]. The main centralised coordinating body was the States General with representatives of the seven provinces, where each province had one vote and where unanimity was required for taking a decision binding on each of them.

There was also the office of the stadholder, more or less a head of government, of each province, who had again a representative and coordinating function, an office that was left vacant for substantial periods of time, for example during 1650-1672.

Another federal institution was the Council of State, a committee of 25 persons in which the provinces and the stadholder were represented and which were entrusted with military, financial and other business, eg. an executive power. The fleet lay under the control of the States General and the admiral general, but the daily direction of naval affairs was referred to the five Admiralty Colleges.

The political system of the UP can be thus called "A democratic head on an oligarchic body", the head being the States General (where each province had a veto right due to the unanimity rule) that were elected and the body the 58 semi-independent cities, which were ruled by the regents ("Regenthen") commercial oligarchy. It was a decentralised system where the provinces and the cities and in them the commercial interests, had the stronger position[16].

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[15] Davids K. and Hart Marjolein t' (2012). The navy and the rise of the state: The case of the Netherlands c. 1570-1810. In J. Backhaus, N. Kyriazis and N. Rodger, (eds). *Navies and State Formation*. Lang Verlag.

[16] For a detailed analysis of the UP political and economic system, see de Vries and van der Woude (1997), t'Hart (1996), Kyriazis (2006), Halkos and Kyriazis (2005), Davids and t' Hart (2012) and the additional references provided there. For the Dutch War of Independence, see Parker G. *The Dutch*

Having shown the relatively weaker position of the central authority in England and the UP, we turn to the challenge faced by the two states and their market-oriented solution.

The challenge of Spain and the market oriented solution.

By the second half of the 16th century, the Spanish Habsburg Empire of Phillip II extended from its American New World colonies, to the Philippines in Asia, and included in Europe Spain itself, Portugal (annexed in 1580), the Low Countries, Sardinia, Sicily and the Kingdom of Naples, and Franche-Compté in today's France. Phillip II was an ardent Catholic like his father Charles V, and saw himself as the protector of the true faith against heretic Protestants, German, Dutch and English alike. Religious, economic and political considerations thus made the Spanish empire to fight against both England of Elisabeth I and the Dutch rebels of the United Provinces under William and then his son Maurice of Nassau-Orange who coordinated the Dutch military effort. Phillip sent armies against the rebels in the Netherlands and prepared fleets for invading England, which culminated in the defeat of the Spanish Armada in 1588. The Dutch adopted a defensive strategy on land, since their own land forces would not be a match in a pitched battle against the Spanish tercio regiments, the best infantry of the time. Their defence consisted of fortresses, coupled with extensive flooding of land areas by opening dams. England did not have a land frontier with any Spanish territory and at the time, like the Dutch, did not yet possess any overseas colonies.

The Dutch, being encircled on land by Spanish territories had only one open way to the rest of the world, the sea. They used it to expand commercially, by the end

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Revolt. Penguin, 1977.For the "War of the Roses" history, see Kendall P.M. *Warwick the Kingmaker*. Cardinal-Sphere Books 1973, Gillingham J. *The Wars of the Roses*. Weidenfeld and Nicholson 1981, and Gravett C. *Bosworth 1485*. Osprey Campaign Series, 66, 1999.

of the century making their first attempt to capture the spices trade, which they did successfully complete during the next century. Parallel to this, they attacked the most vulnerable points of the Spanish empire, their maritime commerce with their colonies. The English tried also during the same time to actively participate, as newcomers, in international maritime trade, at first peacefully, but they encountered the hostility of Spain in her own territories, which sometimes expelled British traders by the use of force, as at San Juan de Ulua in 1568[17]. The Spanish, wanted to keep a monopoly of trade with their colonies, which was one of the causes (the main economic one) for hostilities with England.

Both the English and the Dutch thus went to war against the Spanish trade and colonies. For this, they resorted to privateering, using market organisation forms to finance their expeditions.

Queen Elizabeth had started a programme of building dedicated warships (sailing galleons) of which she had 34 for the 1588 Armada campaign, 13 of which were over 500 tons. This represented 18% of the total English fleet of 197 ships. Of them, 18 were build after 1581 and only 3 before 1570[18]. To these must be added 14 ships build before 1564[19]. This meant that when-undeclared-hostilities started in earnest by the beginning of the 1570's, there were practically no dedicated warships to carry the war against the Spanish.

During the same period, the Dutch revolt had just started and there were none as yet dedicated Dutch warships. On the other hand, the distinction between dedicated

[17] John Hawkins and Francis Drake were at the time merchants who tried to break into the Spanish trade monopoly. In September 1568 Hawkins and his five ships was forced to run for shelter into the Spanish harbour of San Juan de Ulua. A few days later the Spanish treasure fleet arrived and the Spanish assaulted the English ships, and after a six hour battle only two English ships, Hawkins and Drake's escaped (Konstam 2000).

[18] Tincey John, The Armada Campaign. Osprey Elite Series 15, 1988.

[19] Rodger N. A.M. The Safeguard of the Sea. Harper Collins, (London, 1997).

warships and armed merchantmen had just started to emerge. Most navies, the Spanish-Portuguese included (which also comprised some dedicated warships) made up their numbers by impressing merchantmen. Almost all merchantmen were armed, and by being up-gunned (with the addition of more guns) and up- crewed (with the addition of more crew members to serve the guns and in the Spanish navy with soldiers to serve as boarders) the merchantmen became relatively efficient men of war[20].

Thus, the English and Dutch could solve relatively easily the first part of the challenge, the availability of ships. The solution to the second part was less obvious: Who and how would organise and finance the war operations against the Spanish?

In the UP, were the revolt had just started, these were as yet not even a rudimentary central federal authority to do it. England, as stated above, had some royal ships, but retained them for home defence, as a fleet in being. Even more serious, the English Crown did not have adequate finances for overseas expeditions. Queen Mary, Elizabeth's sister and predecessor inherited from her father, Henry VIII an empty treasury and a heavy foreign debt (owed to foreign bankers). She managed her affairs with great prudence, a pattern followed by Elizabeth after she became Queen in 1558. During 1565-1574 she spent on average just £16.000 per year on her Navy (6,5% of total income). But she had spent £ 246.380 on the fruitless Havre expedition (or about a year's total revenue) and she also had a considerable foreign debt[21]. Elizabeth out of prudence (learning of the risks and costs of overseas

[20] The Dutch were so successful against the Spanish with this practice that they discovered quite late and to their detriment the necessity of dedicated warships. This happened after their defeat during the fist Anglo-Dutch war of 1652-1654 by the English dedicated warships, which forced them to build their own (Rodger N. *The Command of the Ocean*. Penguin-Allen-Lane, 2004; Davids and t'Hart forthcoming *ibid*, Tincey 1988 *ibid*).

[21] Rodger N. A.M (1997) *ibid*

expeditions like Havre's) and necessity could not finance herself out of state revenues costly over-seas expeditions against Spanish commerce and New World colonies.

In both the English and the Dutch case, market solutions were found: the use of privateers-corsairs for a war for private first and public as a second, profit.

The emergence of new macrocultures

These market solutions shaped the emergence of a new macroculture. Gradually over time, macro cultures develop that differentiate the basic structures of states, both political and economic. A macro culture encompasses the common values, norms and beliefs shared among members of a society or state. Through these values, norms and beliefs, a macro culture guides actions and creates typical behaviour among independent entities (actors) so that it coordinates their activities so that complex tasks may be completed[22].

We argue that a particular macro culture developed for England and the UP, due to specific historical conditions and the absence of a strong central authority that helped develop in general market oriented solutions like 'partenrederijs' and 'market partnerships' (some of which developed into joint-stock companies), stock exchanges etc.

Merchants who introduced new forms of organisations, the partnerships, to solve the coordination and cooperation problem to be able to participate in long distance trade (as for example the furs timber and cereals trade with Muscovy, the

[22] Jones, Candace., Hesterly William, and Borgatti Stephen, "A General Theory of Network Governance; Exchange Conditions and Social Mechanisms", Academy of Management Review 22,4 (1997):911-945; Abrahanson Eric, and Fombrun J. Charles, "Macrocultures: Determinants and Consequences", Academy of Management Review 19(1994)728-755; Abrahanson Eric, and Fombrun J. Charles, "Forging the iron cage: Interorganisational networks and the production of macro-culture", Journal of Management Studies 29(1992):175-194; Kyriazis Nicholas, and Metaxas Theodore, "Path Dependence and Change and the Emergence of the First Joint-Stock Companies", Business History 53, 3 (2011):363-374

herring fishing in the Atlantic and above all, the spices trade) developed a particular macro culture of values, norms and beliefs.

Simon[23] developed the theory of bounded rationality that states that the mind has limitations, for example in its capacity to absorb and use new information. We are not 'totally' rational in the sense of seeking to maximize utility or any other 'ideal'. What we actually do in real life is to try to reach a solution that satisfies us, even if it is not the best possible one. We may even ignore the best possible one that would maximize utility. Simon calls this behaviour 'safisficing'. Satisficing enables us to find acceptable solutions with minimal expenditure of time and effort, this reducing transaction costs.

Such behaviour has further consequences: Once we have found solutions to a particular problem that are presented as adequate, when facing a new problem, we try to use the established and known 'rules of the thumb', the known knowledge we posses, in order to solve the new problem. This again reduces our effort and time consumed, which is important due to our brain's capacity limitation. Only if we do not find an adequate solution using the existing knowledge and if the problem we face is serious enough, do we devote effort and time to find new solutions. Once we have found some, we have increased our total learning and knowledge.

Satificing behaviour thus diffuses known solutions and problem – solving rules to new problems. But it does so also form the basis of a change from one path to another. Once such a move starts, the diffusion of the particular set of values, norms and beliefs from one sector to another (sector meaning both from one part of the economy to the other, but also from one 'sphere' to another, for example from the

[23] Simon Herbert., Models of Bounded Rationality. vols. 1 and 2, MIT Press, 1982; Simon Herbert, "Bounded Rationality and Organisational Learning" *Organization Science* 2, 1 (1991):125-134.

military to the political, or from the economic to the political) strengthens path dependence along the new path[24].

We argue further on that this is what happened in England and the UP. Due to weak central authorities in both states, a market oriented macroculture developed in the beginning for trade, and then, for war. Trust among members who formed partnerships for trade, was a basic element for them to form partnerships for war. At the same time, trust between ship's captains (very often one of the merchants, like Frobisher, Hawkins and Drake for England) and their crews, developed during their merchant enterprises, was paramount also for their privateering enterprises. And, as a market incentive, privateering was undertaken under the profit motive, exactly paralleling merchant activities.

In the cases analysed here, a new organisation form had been already "discovered", used and tested for overseas trade, the primitive forms of partnership companies. In the UP, they took the form of partenrederijs used for the exploitation first of the North-Atlantic fisheries and then being diffused to general trade, and from the end of the 16th century, also to the spices trade. Similar developments took part in England, with the oldest joint-stock company, the Guinea Adventurers being established in 1553 for trade with Western Africa, followed in 1555 by the Muscory company for trade with the then Duchy of Moscow. The Dutch and EIC joint-stock companies culminated, as an organisation form, in the east India Companies, the English EIC of 1600 and the Dutch VOC of 1602[25].

[24] Kyriazis and Metaxas (forthcoming) analyse the emergence of such a macroculture in Archaic and Classical Greece due to the emergence of the new military formation, the phalanx and the new warships, the trieres, and how the values developed into the military field were diffused into the political and became a pre-condition for the emergence of democracy.

[25] Kyriazis N. and Metaxas T. (2011) *idid*; Palliser D.M. (1983) *idid*

Privateers and corsairs[26] were distinguished from outlaw pirates, since they were empowered by their governments to wage war against their enemies, but not against neutral states and their own ships. They received a "letter of marque" or "reprisal" stating this, and thus acted in a general sense on behalf of their government. What distinguished them from the official government and state owned ships was the organisation and financing of their expeditions and their latitude in pursuing their aims. As to the second, individual captains, or leaders of expeditions in cases where more than one ship participated (more and more common by the end of the 16th and beginning of the 17th century) were totally free to choose the region of their operations and the way they would operate, as well as the time they would devote to their operations. They waged an individual, decentralised type of war, which as we will show later on, proved to be extremely efficient.

As to the first, they took over the partnership as their organisation form. There was a further reason for this, the fact that decision makers in peaceful trade were very often the same with those that became privateers, like the Englishmen John Hawkins, Martin Frobisher, Francis Drake and many others, who started as traders, became successful corsairs and then were knighted for their services as captains in the fight against the Spanish Armada invasion attempt of 1588.

The economic effects of privateering

a) The Dutch "Sea Beggars".

In the early days of the Dutch Revolt warfare was dominated by the actions of a bunch of unruly privateers, called "beggars" in contempt by the Spanish, a name

[26] Privateers and corsairs are synonymous, the first term coming from "private" denoting ownership of the ship by the captain or the company (as against English royal ships owned by the state-queen). Corsair comes from the French "course" meaning booty. As we show, in some cases piracy and privateering was indistinguishable. Corsairs could cross over the "red line of legality" and become pirates.

which they proudly took over as "Watergeuzen" (Sea Beggars). Indeed the Sea Beggars liberated the first Netherlands territory from the Spanish, capturing in a surprise attack the port of Brill in 1572. This was followed rapidly by a number of other ports, Flushing and Veere (in Zeeland), Enkhuizen (in North Holland) and later by major cities like Amsterdam. Thus, the UP acquired the necessary ports for their trade expansion, which served also as privateering bases[27].

During the first two decades of the Revolt, the port-cities authorities were somewhat reluctant to grant corsairs licences, because some privateers attacked and plundered neutral ships, thus endangering the diplomatic efforts of the States General that worked for the recognition of Dutch independence by other states. But in 1598 King Philip of Spain issued an official embargo against the Dutch, forcing the States General to react: All goods and possessions of Spain were legitimate prizes of privateers. In order to limit "outlaw behaviour" by privateers the States General demanded a caution of money of 6.000 guilders, later raised to 20.000, which was forfeited in case of misbehaviour of the captain, eg. if he attacked neutral ships[28]. Showing remarkable flexibility and a very early case of investment cross border mobility according to the institutional advantages and disadvantages offered by each location, many Dutch privateers turned their back on Holland after 1604, when the States General raised the bail and made conditions for obtaining privateer licences more difficult, some becoming pirates, but more often, the merchants joint- stock companies financing (mainly from Zeeland) and contracting French captains (some from Dunkirk) like the famous ones Nicholas Jarry and Pierre le Turcq. Amsterdam

[27] Israel I. Jonathan, The Dutch Republic: Its rise, greatness and fall, 1477-1806. Clarendon Press (Oxford, 1995); Parker Geoffrey, The Dutch Revolt. Penguin, (London, 1977)

[28] Loo, Ivo van. For freedom and fortune: The rise of Dutch privateering in the first half of the Dutch Revolt, 1568-1609. In Marco van der Hoeven (eds), *Exercise of arms. Warfare in the Netherlands 1568-1648*, Leyden-Brill, (New York, 1998), pp. 173-196.

merchants soon followed the example of the Zeeland merchants, financing Durkirk privateers. Well-to-do merchants from Middleburg (in Zeeland) engaged in the privateering business right up to the end of the 18th century. Another Zeeland port Flushing (Vlissingen) grew into one of the most feared privateering ports of the time[29].

We have within the various cities of the early UP an early manifestation of intercity competition that led in the course of time to some maritime specialisation: Amsterdam developed into the most important trading and entrepôt city and thus was less interested over time into privateering business. Some Zeeland ports, like Flushing and Middleburg, which were economically hit by the downfall of neighbouring Antwerp (due to a large part to Dutch sea blockade) specialised into the alternative maritime business form of privateering.

But even Amsterdam invested heavily into privateering in an indirect form, through the prototype joint-stock companies, the East India VOC established in 1602 and the West Indian one. Amsterdam financial interests were predominant in both[30].

The VOC played an important role by undertaking large-scale privateering activities against Spanish and Portuguese (Portugal having been incorporated into the Spanish empire in 1580) ships and colonies in Asia[31]. The West Indian Company was even more successful in its privateering expeditions, its biggest success coming in 1628, when a company fleet commanded by Piet Heyn managed to capture one Spanish Plata Silver fleet off Matanzas in Cuba. It was the only time in history that an entire Spanish treasure fleet was captured. This not only financed the WIC's successful conquests in Brazil, but also destroyed in one blow about a third of the

[29] Davids K. and M.t'Hart (2012) *ibid*
[30] Kyriazis N. and Metaxas T. (2011) *ibid*
[31] Gaastra, F. Simon, The Dutch East India Company, Walburg Press, (Zupthen,2003).

ships employed in Seville's (Spain's main port with the New World) Atlantic trade. Between 1623 and 1626 the WIC took or destroyed 547 ships worth about 5,5 Mio guilders[32]. This sum was greater than the WIC's total, own capital. The WIC capital was 7 mio guilders, and the value of the silver captured in 1628 was more than 10 mio guilders[33].

Within the Dutch-Spanish conflict, the Dutch were also fighting against Portuguese, since Portugal had been incorporated since 1580 in the Spanish empire, and remained part of it till 1640 (The Portuguese squadron of the Spanish Armada of 1588 was one of the best and ……of 12 galleons with 387 guns and 3649 crew)[34]. Portuguese ships and colonies suffered substantially from Dutch attacks, both in American waters, (outside Brazil) Africa (outside Angola) and Asia. In particular, the Dutch thought that these Portuguese colonies were weak links in the Spanish – Portuguese empire and, using seapower, they extended their operations ashore, attacking Portuguese strongholds. In 1624-5 they took and then lost Bahia, in 1630 they began the conquest of Permanbaio (NE. Brazil) which has completed by John Maurice in 1637, in 1638 they captured Elucina in Guinea (Africa) and started the conquest of coastal Ceylon, in 1640 they defeated a Portuguese armada of Pernambuco, in 1641 they captured Malacca (in SE. Asia, today's Malacca Straits), the Mercahao and Luanda. They concluded a Ten Year Trace with the Portuguese in June 1641. Hostilities resumed nevertheless in 1644-5 with a rebellion against the Dutch in NE Brazil, while the Portuguese recaptured Luanda and Benguela in 1648, and by 1654 the Portuguese expelled definitely the Dutch from Brazil. On the other

[32] Cooper J.P. Sea Power, in the New Cambridge Modern History, Vol. IV 1970. In *The Decline of Spain and the Thirty Years War*. Cambridge UP, Chapter 5, pp. 226-238.

[33] Goldsmith W. Raymond. *The Financial Development in India, 1860–1977*. Oxford University Press, (New Delhi, 1983), pp. 214, 305

[34] See Koustan, A. (2001). *The Armada Campaign*. Osprey Campaign 86

hand, the Dutch completed during 1654-1658 the conquest of Coastal Ceylon and Malabar from the Portuguese. Peace was signed with the now independed (since 1640) Portugal, which left the Dutch dominant in Indian Ocean waters and Asia (where the Portuguese retained only a few bases like ….in the Indian peninsula and Macao off the Chinese coast) and the Portuguese undisputed mates in Brazil[35].

The Dutch – Portuguese conflict was costly for both sides and most of capital of the Dutch West India Company was lost in the Brazilian war, which explains in past why the WIC was less durable and successful than the VIOC. On the other hand, the war was even more costly for Portugal, which although it did regain Brazil, lost most of its Asian colonies, and even more important, the lucrative spices trade. Portugal was definitely in decline by the 17th century[36]

b) The English Sea Dogs.

Already by 1563 Elizabeth granted the first "letters of reprisal". The corsairs' enterprises linked trade, war and privateering and in some cases like with the Dutch, piracy, with the religious feeling of "holy" war of the Protestants against the Catholic League of Phillip II linking with patriotism and economic gains. As with the Dutch, and more or less for the same reason, the organisation form of joint-stock companies, called "syndicate of investors", were chosen. These syndicates were open for participation to merchant-bankers, nobles, the captains and the sailors of the ships, but even members of government. In the financing of Drake's expedition of 1577

[35] For more details of the Dutch-Portuguese conflict, see Boxer (1965) 'The Dutch Seaborne Empire', and Boxer (…) 'The Portuguese Seaborne Empire, both Hutchinson & Co and W.C. Atkinson (1963) 'A history of Spain and Portugal', Penguin Books.

[36] We owe this clarification to one of the reviewers

participated along the usual merchant and banking circles, Sir Francis Walsingham, the Secretary of State, and Queen Elizabeth herself [37].

The gains were distributed according to everyone's share in the enterprise, with the Lords of the Admiralty (eg. the "Ministry of the Navy" of the time) receiving 10% of the sales at auctions of the seized enemy property. This can be interpreted in modern terms as a kind of sales tax, linked to the fact that the Admiralty granted the licences to the privateers[38].

As suggested in Kyriazis-Metaxas[39], the first successful expeditions initiated a continuous game, along which the enterprises became more elaborate, ambitious and bigger. Along each further step of the game, the decision makers gained every kind of new knowledge, financial, organisational, operational and technical.

After the successful repulse of the Spanish Armada in 1588[40], Elizabeth and the Lords of the Admiralty felt that since the danger of invasion was less acute, they could use also royal warships in privateering expeditions. So, in some of the expeditions of the 1590's, Elizabeth contributed both funds and "means in kind", eg. royal warships. For the 1596 expedition against Puerto Rico, she contributed 33.266 pounds and some royal ships to the total of the 26 ships. Commonly, guns from royal ships, as well as cords, ropes etc. were used to furnish the "private" privateering ships. We can interpret, in modern terms, this organisational development as one of the first

[37] Bradford Ernle. *Drake*. Hodder and Stoughton, (London, 1965).

[38] Konstam Agnus, Elizabethan Sea Dogs 1560-1605. Osprey Elite Series 70, (Oxford, 2000); Andrews K.R. *Elizabethan Privateering*. Cambridge UP, (Cambridge, 1964); Rodger N. A.M. *The Safeguard of the Sea*. Harper Collins, 1997*;* Kyriazis Nicholas, and Zouboulakis Michel, "The Economics of Sea Power: Property Rights Arrangements and Institutional Change in Elizabethan England", Economic and Social Sciences Tribune 37 (2003):77-96.

[39] Kyriazis N. and Metaxas T. (2011) *ibid*

[40] Konstam Agnus. The Armada Campaign. Osprey Campaign 86, (London, 2001).

historical cases of Public-Private Partnerships (PPP), which was a case of acquiring and deepening new organisational and institutional knowledge.

Technical knowledge went also hand in hand with organisational one. Since the privateering enterprises were driven by market and profitability considerations, we should expect that cost and efficiency aspects were given particular attention. When "businessmen" undertook the privateering operations under the profit motive, they made their ex-ante calculations with this aim, much more so than say Spanish "bureaucrats" who were administering and appropriating state funds. This actually happened in England. We analyse two technical aspects to illustrate this.

Till the middle of the 16th century, most guns were made of bronze, which offered many advantages compared to iron guns[41]. But for the English, and for privateering in particular, iron guns offered a decisive advantage, that of cost. Iron abounded in the country and iron guns cost one tenth of the price of bronze guns. During the period under consideration, a period of increasing inflation in Europe and in England, the price of cast iron guns actually fell from 10-12 pounds per ton in 1565-1570 to 8-9 pounds in 1600[42]. As expected, privateering ships, (and royal ships as well) were increasingly supplied by iron guns. This again led to a great impetus to the iron industry in England. Thus, cost considerations linked with the profitability motive of the privateering expeditions led to long lasting economic effects[43].

[41] Iron melts at a much higher level of temperature that bronze, making it thus much more difficult to achieve high quality without shortcomings. It weighs about 20% more than bronze and becomes corrugated by gun-powder. A bronze gun that received an overdose of powder discharge dilates and cracks, but an iron gun under the same circumstances just explodes without further warning. Thus, iron guns were more dangerous to their crews (Rodger, 1997).

[42] Davies C.S.L. Supply Services of the English Armed Forces. Ph.D. Thesis Oxford University, 1963.

[43] For an analysis of the economic effects of the iron guns production and the development of the iron industry it helped create, see Kyriazis-Zouboulakis (2003) and additional references cited there

Privateering ships were, also due to cost considerations, relatively small, compared to their prey, the Spanish and Portuguese Atlantic and Asian galleons. Drake's "Golden Hind" for example had a displacement of 120 tons (and was armed with 18 iron guns)[44] compared to 700 and up to 1.200 tons of the enemies galleons and naos[45]. In order to be able to defeat their enemies in battle, the small English privateering ships had to develop a technical advantage: They were better sailing ships, but also, they achieved a much higher rate of fire. This again was due to their development of a new gun carriage (four short wheels against two big ones as in land guns in most Spanish ships) and tackle system, which permitted a faster reloading of guns. According to some estimates, the English could fire a shot every two minutes, while the Spanish needed usually double that time. The new gun carriage-tackle system was first introduced in the "Mary Rose" of 1545[46] but it was generalised by the 1560's in all privateering ships and parallel to them, in the royal ships. It is clear, that the new innovation was efficiency enhancing.

We now turn to a brief summary of privateers operations and their economic effects. Most famous amongst them was Drake's expedition of 1577 which would result in the second, after Magellan's, circumnavigation of the world[47]. In the Pacific Ocean, off the coast of Peru he captured the Spanish galleon "Nuestra Seňora de la Conception" loaded with 26 tons of silver from the silver mines of Potosi. At the Molucas islands in the Pacific he added a second ship carrying spice, before returning

[44] Bradford E. 1965, *ibid*

[45] The nao was a Portuguese big merchant sailing ship (the word originating probably from the Greek "ναυς" meaning ship). Konstam (2001) gives a list of the Spanish-Portuguese Armada ships, many of which were armed merchantmen. Among them the naos "Santa Anna" and the "La Regazona" both displaced 1200 tons, while among the typical merchantmen supply ships, we find "El Gran Grifon" and "San Salvador" of 650 tons and "El Castilo Negro" of 750.

[46] Konstam A., 2001, *ibid*

[47] Drake started the expedition with 5 sips and 164 men, but finished only with his own "Golden Hind" (Bradford 1965 p. 101).

to Plymouth in 1580. The value of his plunder was the astronomical sum of 600.000 pounds, double the annual Crown revenue. His investors had a rate of return of 4.700%, which makes it probably the best single investment in history.

During the last two decades of the 16th century, the cargoes of Spanish ships seized by privateers were valued at 100-200.000 pounds per year, representing about 15% of total English imports. During the war period with Spain after 1588, they seized over 1.000 ships and organised a total of 150 expeditions against the Spanish towns and settlements in the New World, leading to the conquest and plunder of many of them, such as Puerto de Caballos in Mexico (plundered 6 times) Porto Bello in Panama, even Cadiz in Spain in 1587 and 1596. Their success was such that the prices of colonial goods of the Spanish empire were often lower in the London than in the Seville market![48]

The importance of privateering for England is illustrated also by the fact that coinage during Elizabeth's reign is given as £ 5,4 mio, out of which £ 4,6 mio silver. According to Goldsmith[49] "Most apparently came from Spanish America, partly as the result of naval privateering operations". Craig[50] estimated the amount of silver captured from Spain at £ 1,25 mio, or 27% of total silver circulation.

When the treaty of Muenster of 1648 brought peace and formal recognition of the UP by Spain, Spain managed to retain most of its colonies in America, with the lost of only some of them in the Caribbean. But Spain was in decline, and did not regain its leading position as the greatest European power. During the period from 1557 to 1647 there were six consecutive bankruptcies, which brought down with them

[48] Andrewes R. Kenneth, Trade, Plunder and Settlement: Maritime Enterprise and the Genesis of the British Empire 1480-1630. Cambridge UP, (Cambridge, 1984); Rodger N. A.M. 1997, *ibid;* Kyriazis N. and Zouboulakis M. 2003. *ibid*

[49] Goldsmith R.W. (1983), pp.180, *ibid*

[50] Craig John. The Mint. Cambridge UP, (Cambridge, 1953), pp.127.

great financial houses, ruining its financial credibility and destroyed in the long-run the development of a stable financial, banking system and stock exchange in Spain[51].

As Rodger[52] remarks: *"Twenty years of war changed England's perspective. While before the Queen possessed an imposing but almost isolated fleet now naval strength had become a national matter. It was clear that England's future laid in the open seas… The English had learned that the sea was more than a defence against a hostile world: it had become the means to discover new worlds for gold, fame and glory".*[53]

Conclusion

Due to the particular historical circumstances pertaining in the second half of the 16th century, two relatively poor newcomer states in the international arena, England and the UP, both having relatively weaker central authorities than contemporary empires (the Spanish, Ottoman, Mughal and Ming) had to find new means to face the Spanish challenge.

They adopted market oriented solutions, to wage war for profit using partnership companies as an organisation form to mount privateering expeditions. It

[51] See Rodger 1997; North 1990; North and Thomas 1973; Kyriazis and Zouboulakis 2003; Trevor and Poper 1970; Spooner 1970; Cooper 1970; Kennedy 1988. We have elaborated the above on the request of one reviewer. In general, both historians and economists agree on the decline of Spain as a result of the war with England and the UP. Rodger (1997) [chapters 18, 20 and 24] describes the results for Spain's commerce and gives a vivid description of the ruin of Spanish shipyards. Older historians already had described this, as Trevor Roger (1970, chapter IX, p.263) writing: '*The war had now proved long, meaningless and disastrous*', Cooper (1970, chapter VIII) writing on a change in the balance of sea-power and the rise of the Dutch and English naval supremacy, and Spooner (1970, chapter II) writing on Spain's decline and the Northern states rise. Even the title of vol. IV of the New Cambridge Modern History is characteristic: '*The decline of the Spain and the Thirty Years War*', Kennedy (chapter II, p.41) writes on the conclusion of the war *'…they revealed that the age of Holsburg ….in Europe was over'*

[52] Rodger N. A.M (1997), pp. 296, *ibid*

[53] The last phrase has been attributed to Sir Walter Raleigh, a famous corsair, admiral and poet.

was a decentralised form of war-making, since privateers followed their own aims and tactics, not according to a central plan. They could expect maximization of profits if they attacked the enemy's commerce, both ships and settlements. In due time this strategy of commerce raiding proved to be the Achilles heel of the enemy. As we have sketched above, the privateering-commerce raiding activity brought wealth and profits to England and the UP and ruin to Spain. It was the first time in history that privateering was used in such scale and to such effect, (although of course privateering and piracy is almost as old as maritime history itself). Thus it comes as no surprise that this commerce raiding strategy has been adopted during the following years as a strategy of the weaker naval opponent against the stronger one, with varying successes, as for example by the French against the Anglo Dutch during the War of Spanish succession 1702-1713 and the Napoleonic Wars, and the German submarine warfare against the Allies during the two World Wars.

Economists of course have very often argued about the superiority of market regimes as against state planed ones in terms of economic efficiency and growth.

The main point of our analysis here is that market solutions can prove to be superior in war strategy, even though they came about, as in the cases of England and the UP, by chance or by trial and error. It seemed that pursuing personal profit, as the privateers did, they operated under an "Invisible Hand of the market of war" (to paraphrase the well known dictum of Adam Smith) which in the end maximized operational efficiency and economic benefits.

On the other hand, the more centralised Spanish empire had an elaborate policy driven by non or mainly non economic motives. Kennedy[54], for example gives as the main policy aims of the Habsburgs religion 'protector of Catholic Christendom' and

[54] Kennedy Paul. The Rise and Fall of the Great Powers. Unwin-Hyman, (London, 1988), pp. 51.

'reputation'. The relative strength of the central authority in Spain, coupled to centrally laid policy aims led to "acts of economic folly"[55] and institutional solutions that in the long run were growth inhibiting[56]. Phillip II of Spain for example used his considerable wealth to wage war at the same time against the Ottomans in the Mediterranean, the revolted Dutch, the English and the German Protestants. His resources were not sufficient for all these operations. Further, he neglected one of his empires crucial regions, the New World possessions and his lines of communications. Were he to operate under more market oriented considerations, his policy priorities would have been to strengthen the defences of his New World territories and of his sea communications, instead of wasting money fighting the Protestant German princes and the Dutch.

Moreover, the privateering war against Spain fostered a new 'macroculture' of new norms and values, which were market oriented and not imposed by a central authority, like self-confidence, self-reliance trust, a 'sense of destiny' and the profit motive. This macroculture was the basis for searching and finding new institutional solutions to a new formidable challenge, that of Spain's threat to the independence and the economic interests of England and the UP. The answer were market based institutions and organisations, like partnerships and joint-stock companies both for trade and for war, and later a whole interdependent complex of financial institutions, banks, insurance and stock exchanges. We have suggested that due to bounded rationality, the new organisations forms that emerged as a solution to enable merchants to participate in long distance trade, were taken over when facing the

[55] Kennedy Paul (1988), pp. 52, *idid*

[56] North (1981) and Kennedy (1988) give many examples of bad institutional choices taken by the Spanish empire, as for example the taxation of the "mesta" guild (wool producer of Spain) that inhibited the enclosure movement in Spain and thus long run efficiency in agriculture.

challenge of war, and were successful also here. These organisations for partnerships and joint-stock companies were later diffused to all sectors of economic activity.

Thus the macroculture that emerged first in the maritime sector (for peace and war activities) became the basis for a gradual break of the old path dependence, as illustrated in our model, and the development along a new path which was also growth- enhancing in the long-run. England and the UP became the richest (in terms of GDP per capita) countries in the world during the 17th century[57].

We have also argued that the external challenge of breaking Spanish-Portuguese dominance certainly accelerated the movement along the new path for England and the UP, and perhaps was even the main reason that this new path emerged.

We suggest as a further area of research the analysis of other historical cases under the criteria proposed here.

[57] De Vries Jan. and van der Woude Ad, The First Modern Economy. Cambridge University Press, (Cambridge, 1997).

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