Abstract

The early modern Swedish navy was a maritime enterprise in a society with under-utilised maritime resources. The entrepreneurs were members of the ambitious Vasa dynasty, which administrated the navy as a complex organisation without participation of private maritime interests. This was a new concept of organisation of resources and it made it affordable to develop strong naval power from a rather weak resource base. The navy was a part of the dynasty's entrepreneurial activities in raising resources from an agricultural society and transforming them into instruments for political power. It was an example that organisational innovations may be of decisive importance.
Early modern navies are normally analysed in a maritime context. In that, naval power is related to shipping, trade and colonial empires and maritime skills are central in explanations of success and failure of navies. Navies are, in contrast to armies, not regarded as instrument of rulers for political control of their subjects. Early modern states are usually supposed to have relied on private contractors for warfare because they lacked administrative competence until their own bureaucracy had matured as a result of that the armed forces became permanent. Early modern states are also frequently analysed as fiscal (tax) states or military states in socio-political models where taxes are raised for warfare and competition between states. The rise of the European type of state as a complex organisation, able to transform and manage resources with lower transaction cost than earlier social systems are not in focus in such models. Technology is in political history normally seen as an external factor that possibly influenced political change but technical efforts are not discussed as parts of policy and administration (Glete (2000), Glete (2002)).

Sweden had from the sixteenth century both a permanent army and a permanent navy. They were large in relation to the size of the population and they made it possible for the rulers to pursue an expansionistic policy in competition with more populous neighbours. Sweden was not a maritime society, nor was it economically advanced in comparison with its neighbours. There were no interest groups that demanded protection of shipping and paid for a navy from
their profits and there were no strong interests behind an expansionistic policy. The initiative behind the birth and development of the Swedish navy (and army) cannot be traced to any other actor than the ruling dynasty. This dynasty had to a considerable extent founded and consolidated its political position in Sweden by its ability to organize naval power with modern technology. Swedish rulers did not use contractors for the administration of the navy until the seventeenth century, after a century of experience with state-run administration. This was no obstacle for the development of effective Swedish naval power already in the sixteenth century. This is a strong indication of that the state and its organisational capability was more important for naval development than maritime skills or maritime interests.¹

The early modern Swedish navy thus calls into question common assumptions about both navies and the development of the European states. The navy lacked support from a viable maritime economy, it was important for domestic power and it was achieved through the rapid development of a new type of complex organisation where the rulers, not private contractors, administrated men, provisions, armament and warships. An advantage in technology was created by the rulers' active intervention to combine resources in innovative ways. Private contractors appeared later when the Swedish economy had developed and the state was interested in competition and new ideas in order to reduce transaction costs. It was the rulers who provided the society with an innovative form of sea power, which made such power affordable at low cost in a society with few maritime skills. The navy was the result, not only of demand and supply of resources for protection and warfare, but also of political entrepreneurship and entrepreneurship in fiscal, naval and technical administration. It was also the result of that the rulers were able to create a Schumpeterian tax state. Only a state with firm financial foundations could make investments in warships and guns and maintain the cadres of officers, seamen and administrative personnel, which were necessary for the existence of a navy in a non-maritime society.

The navy was however also the result of that the Swedish society was open for innovations and transformation. A complex organisation such as the navy could not exist and compete with other naval organisations unless the society was open for new talents and rewarded men with scarce organisational, technical and maritime competencies. Social mobility and positive attitudes to foreigners with new abilities were necessary for the rise of a navy in a peripheral and initially non-maritime region of Europe. Political interaction between rulers, elite groups and the peasants was essential for the raising and transformation of resources from an agricultural economy to a naval organisation. The Aristotelian hypothesis that navies are connected with "democratic" societies is in the Swedish case confirmed if democracy is
interpreted as a society where competence is rewarded with social rise and where broad participation in political decision-making makes it easier to achieve innovative solutions to the problem of handling scarce resources in a rational way.

1. The historical perspective: Navies are inventions

Navies are organisations maintained by states as instruments of policy for control of the sea. They make it possible for states to control and protect sea lines of communication, to project power across the sea and to deny enemies the free use of the sea. Many of our ideas about early modern navies were formed by studies made in the nineteenth and early twentieth centuries, when the nation state had its heyday. The modern state was seen as the self-evident outcome of historical change and its army and navy as instruments of national political interests and policies. Navies were evaluated as the more efficient the more they adhered to nineteenth and early twentieth-century ideas about naval policy, administration and operations. They were studied from strategic perspectives by sea officers and by historians for their role in national development. Studies from these perspectives are still important but there are other perspectives that are fruitful for an understanding of why naval power exists and why it has not existed in several historical contexts.

From a late medieval or early modern perspective there was nothing self-evident about permanent navies or armies or even a state-controlled monopoly on violence. Sea power was not necessarily based on taxes raised by states. It could also be financed by those who had a direct interest in it: merchants, privateers or local communities. Merchants and local power-holders beyond effective control from a central authority have since ancient times organised maritime forces for protection or plunder without relying on a fiscal system. Ship-owners built ships suitable for warfare, merchants sailed in convoys and maritime cities organised local patrol forces as well as major fleets. Rulers who wished to control the sea could make use of these resources by hiring ships and men and leave the administration of naval power to commercial and maritime interest groups.

Navies and naval policies are not necessary. States and societies could try to live without the ability to use organised violence at sea. In early modern Europe it was quite common to do so. Some states did that because those members of the society who wished to use and control violence at sea did it on their own, at their own cost and profit. Others did abstain from naval power because it was too expensive or too complicated to administrate and because the rulers did not believe that it was essential for their own survival. In the early modern Baltic, major states like Russia, Poland and Brandenburg-Prussia existed for centuries without navies of any
importance. From the position of the ruling prince, the creation of a navy was not urgent if his own position was not seriously threatened from the sea. A prince or a ruling oligarchy must have both strong incentives: threats or opportunities, and a considerable organisational capability if they should develop an ambitious naval policy.

Early modern European navies were of two main types: monarchical instruments of political power and instruments of maritime societies with ambitions to control the sea for trade. The difference is not total, as territorial rulers often were interested in the promotion of trade and maritime societies often were interested in political control of their domestic territories and territories important for trade. The difference is, however, useful for a discussion of why different resources and skills were combined to create naval forces with such persistency that they became permanent navies. It is also important to relate naval policy to the interests of ruling groups as early modern rulers, kings as well as republican leaders, cannot only be seen as defenders of eternal national interests. They must be seen as power-seekers involved in competition, both with other states and with conflicting groups in their own society. Domestic conflicts and civil wars were often of decisive importance for the transformation of armed forces. Conflicts generated threats and opportunities, they released entrepreneurial efforts to innovate and they created new forms of political interaction. Permanent armed forces were new organisational structures, created by someone in interaction with others (usually taxpayers), and they in turn created new power relations in a society.

Some European navies were obvious creations of kings and dynasties. Early gun-armed sailing-ship navies were founded by the Aviz, Tudor, Oldenburg and Vasa dynasties and the main naval dockyards as well as the main ordnance depots were located at the centres of royal power in Lisbon, London, Copenhagen and Stockholm. The Portuguese navy was created as an integrated part of the rulers entrepreneurial activities as merchants and protection-sellers at sea in the South Atlantic and the Indian Ocean. The fifteenth and sixteenth century empire-building Ottoman sultans were also the entrepreneurs behind the creation of a large galley navy, based in Constantinople. It is significant that these cities also were capitals and centres for trade and shipping where the rulers and their administrative staffs could gain close contacts with maritime skills. The naval bases they supported central political power as a navy could project armed force against foreign powers and domestic opposition and make it difficult for external and internal enemies to cooperate. In a later period, tsar Peter I was personally the initiator behind the creation of a Russian navy. He even moved the capital of Russia to his new naval base and centre for maritime trade, St Petersburg.
Most of these dynasties were of rather recent origin as power-holders. This is obvious in the case of the Tudors and the Vasas who both gained power through rebellions but none of the other dynasties were very old or could take power for granted. Ottoman sultans often fought for life and power with their brothers before they gained power. The Oldenburgs were from 1448 to 1660 only elected kings in Denmark-Norway and the navy, together with the Sound Toll that paid for it, were among the few institutions in the state over which the king did not need to share control with the aristocratic Council of the Realm. Peter I gained power only after a violent conflict within his family, and his navy was a part of radical and controversial reforms in Russia, which he tried to westernize. These dynastic founders of navies were not ordinary monarchs who ruled because their ancestors had ruled for several generations. They were ambitious and politically skilled men who fought for survival or for increased power. Their naval policies were parts of strategies for using opportunities and countering threats and when they chose to organise navies they started naval enterprises.

The two other early modern European states which had large navies, France and the Habsburg Spanish monarchy, showed ambitions but less consistency in their naval policies. They were ruled by dynasties for which naval power was important but not vital for their survival as rulers, except the galley fleet for Habsburg's power in Italy. This is reflected in naval policies where the navies were created and abandoned, increased and decreased in a volatile pattern. Spain and France were both periodically the largest naval power in Europe but also periodically almost powerless at sea.

Maritime cities usually declined as sea powers in the early modern period. It may be explained with that such cities could also exploit opportunities created by the rising monarchies and trade as neutral powers or as subjects under the protection of rulers. In the Baltic, the German Hanse cities had been the most powerful sea power in the fourteenth and fifteenth centuries and not even the Nordic Union of Denmark, Sweden and Norway had been able to compete successfully with their power in the long run. Lübeck's sea power became the first victim of the Vasa dynasty's new naval ambitions, a deep irony as it was Gustav Vasa's friends in Lübeck who had supported his rebellion and sold him a navy. Some republican regimes centred on maritime cities were however successful in developing large navies, especially Venice and the Dutch Republic. In their case, entrepreneurship in maritime trade and naval power were intimately connected. The same mechanisms appeared in the brief period of republican rule in England around 1650 when the new regime drastically increased the navy, partly to protect the results of the civil war, partly to promote trade.
2. State formation, protection-selling and naval entrepreneurship

Rulers cannot raise resources from society and shape instruments of power without providing society with something in return. Armed forces paid by taxes are from an economic point of view a transaction where an organisation, the state, sells protection to a society (Lane (1979)). Like other organisations they are created in order to use scarce resources more efficiently. If the transaction should be useful for those who pay, the service delivered by the state must be better or cheaper than if they had used the resources to protect themselves. The state must reduce the transaction cost for the society of organising protection. As in other organisations, there is a risk that the state and its officials use the resources in their own interest rather than in the interest of the subjects and principals (Williamson (1985), Williamson (1996)). Those who pay for protection must therefore have some trust in the state and the mechanism of control they have over it. State formation can in this perspective be seen as the result of a bargaining process about resources between rulers and various parts of the society about protection and violence-control (Tilly (1990)). If the ruler is able to convince taxpayers that they are better protected if they provide the ruler with resources to create organisations for that purpose, the structures called "the state" take form.

Navies were, in an early modern context, very complex organisations. They required advanced technology, large-scale investments, long-term planning and an unusual degree of centralisation of many skills and vast resources. Such organisations do not develop spontaneously or merely by centralising resources. They are the outcome of efforts by an individual or a group to combine different skills and resources into a new structure where several individuals cooperate (Scott (1992)). Creation of new combinations or innovations is, with the theoretical approach introduced by Joseph Schumpeter, the central role of the entrepreneur (Schumpeter (1934)). The creation of a naval organisation is an act of entrepreneurship, achieved by identification and combination of those scarce technical and administrative skills, which are critical to form successful operational fleets. Entrepreneurial efforts are also necessary to create the new political and administrative combinations, which provide the navy with resources.\(^5\)

Power over resources in society is normally derived from ability to achieve order, stability and security. A ruler (or a ruling oligarchy), who creates permanent armed forces and a fiscal apparatus to support them, attempts to exercise power by being an efficient leader and administrator of a complex organisation. Such rulers must find competent ministers, bureaucrats and officers to whom they could delegate the practical implementation of their decisions about policy and operations. Control of resources and men cannot be achieved
solely with formal rules and laws. Administration and wartime operations require initiative, leadership and ability to make decisions on the spot under uncertain and dangerous conditions. There must be men who lead other men on the operational levels if the policy from the top should be implemented in society without much friction and high transaction costs. Gradually, rulers found methods for control of growing organisations by developing hierarchical structures where each level was given sufficient power to control the subordinate levels through access to patronage and allocation of resources. Bureaucrats and officers were provided with social prestige and the right to punish and reward subordinates in order to be obeyed and respected when the ruler was not present.

Rising fiscal-military organisations were often regarded as competitors by traditional power-holders, in early modern Europe normally the aristocracy. If aristocrats with power and prestige in the local societies mobilised resistance against them, the innovations might fail or not even be attempted by the rulers. As a navy is more dependent on centralised resources than an army, it is also more vulnerable to such resistance. If traditional elite groups were offered opportunities to share in the power of the fiscal-military organisation, obstacles to state formation could be reduced. Fiscal-military organisations could be substantially strengthened if such elite groups used their prestige and networks in local society to support them rather than to resist them. Great lords without naval experience were frequently given command over large fleets because their social position gave them authority and made it easier to get things done. In the Dutch Republic the navy's administrative structures were closely connected with powerful regional maritime interests. Denmark and England were unusual in early modern Europe as landed elite groups had easier to accept a royal navy than a royal army. In continental powers it was more typical that landed elites accepted an army where they could play a role in administration and the command structure.

A distinctive feature of the European fiscal-military states was that they were separated into a fiscal organisation, which raised resources, and armed forces, which used the resources. This was not only a practical question of specialisation. The separation was a decisive precondition for the growth of centralised authority over society through an organised state. Local power-holders have since ancient times extracted resources and kept control over them to protect their power and to extract more resources. A new type of state was created when rulers were able to separate tax-raising and armed force into separate hierarchical structures, which were not directly connected on the local level. Resources were centralised under political control before they were distributed to men who controlled armed force. Centralised resources are especially important for a navy, as army forces may at least survive on local
resources (feudal forces, contributions or a militia system) if required. Navies require strong and well-organized fiscal-military states more than armies if they should be successful.

3. Control of the sea and the Swedish fiscal-military state
Late medieval and early modern Sweden had long coasts but small maritime interest groups. The coastal population was skilled in building and handling small craft for local transports and fishing. Capital and competence for developing a more complex maritime economy with large ships and long-distance trade were scarce, however. Foreigners, first the Germans and in the seventeenth century the Dutch, dominated long-distance shipping to Swedish ports. Even maritime enterprises in plunder and privateering from the Swedish coasts were little developed.

Control of the sea was important for the Swedish society. Most of the foreign trade was shipped across the Baltic Sea. The two main parts of the kingdom, Sweden and Finland, were separated by sea and control of the sea meant easy access to central Swedish territories and towns close to the coasts. A foreign or domestic ruler who gained control of the sea had much leverage in relation to the Swedish society. Control of the sea also meant opportunities. The Baltic Sea and the large rivers, which flow to this sea, form a major transport route between eastern, northern and western Europe. Its importance increased markedly in the early modern period, when the Baltic with its large resources of naval stores became closely linked to the dynamic Atlantic economy (Attman (1973)). This made the sea and its trade an interesting source of revenue from trade or protection-selling.

The centralised Swedish fiscal-military state, which was founded and developed by the Vasa dynasty, was from its beginning in the 1520s, closely connected with the new king's ambition to gain control of the sea around Sweden's coasts. The new type of state was in fact not necessary for defence on land as that could be achieved by traditional method of mobilising local militia. Even when the Swedish fiscal-military state turned to offensive warfare, it was still dependent on its political ability to induce the peasant society to raise soldiers for long wars. Control of the sea was different however. It required technically advanced and expensive hardware: great ships and heavy guns, and such resources could only be financed and administrated by a central authority. This authority must also be able to recruit, feed and pay seamen, gunners and soldiers and provide them with a command structure that formed them into a workforce on warships. In a maritime society many of these skills could be found among merchants, ship-owners and seafarers but this was not possible in
Sweden. If a Swedish ruler wished to have a navy he either had to hire it from foreign merchants or develop the necessary skills himself.\(^6\)

The first alternative would require ability to raise large financial resources at short notice. It was also politically dangerous. Timing and availability are critical in a mobilisation process and commanders and administrators of a hired fleet would be less reliable as they were not dependent on the ruler for their future careers. The latter alternative was challenging as the ruler must finance a naval organisation permanently and find men with the necessary skills to administrate it. If successful it gave the ruler better ability to protect his subjects but also a better ability to control them. Control of the sea might cut the communication lines between internal opposition and foreigners, a threat against rulers that had been serious in the past. Gustav Vasa, the founder of the Vasa dynasty had himself in 1520 returned to Sweden from Lübeck by sea as a political refugee and he had created his power by combining domestic opposition against the Oldenburg king with help from Lübeck sent across the sea. As a king he often sent out his warships to guard the coasts against exiled opponents to his rule and against foreigners who were suspected to cooperate with domestic opponents. He knew the potential of such cooperation from his own experience.

King Gustav had originally mainly grasped the opportunity that control of the sea could give in domestic power politics and in defence of his new monarchy. In the latter half of the sixteenth century the Vasa kings increasingly used this power to gain control over territories across the sea. The Swedish imperial policy in the eastern and southern Baltic would not have been possible if the Swedish state had not controlled the sea lines with a navy under their own administration. As Sweden was the only power in the northern and eastern Baltic that developed such a navy, the expansionistic policy got an administrative and technical leverage. Sweden controlled the sea lines to foreign ports in the northern Baltic Sea, it could blockade them and sell licenses to trade on them (Attman ((1979)). Sweden could send soldiers, guns and provisions to coasts, ports and river estuaries without meeting any opposition on sea. Seaborne logistics to critical areas of military operation could be protected by naval power. The navy could protect Swedish coasts against enemies who had no navy and the Swedish army could concentrate on offensive operations. The only neighbour with an ability to intervene against Sweden at sea was from 1570 Denmark, but before the 1650s it would require strong provocations from Swedish rulers to make the Danish Council of Realm willing to allow the Danish king to start a war against Sweden.
4. Before 1521: The decentralised fiscal-military system

Sweden had by 1520 a history of more than half a millennium as a kingdom. In certain respects it was more unified than many other European countries. The feudal structures were weak and the legal and administrative structures were essentially similar in most parts of the kingdom. However, the fiscal and military administration of resources for warfare was decentralised and dependent on personal relations between members of the elite and between them and local societies rather than on a hierarchical organisation and men dependent on a central ruler. Kings were elected and for centuries the normal fate of a Swedish king had been to be deposed. The possibility to accumulate resources and experience within a dynasty had been small. There was no formal parliament to which rulers could turn to raise taxes for war. Instead they had to turn to regional elites and communities and ask them to raise armed forces, which temporarily might be united under a central authority.\(^7\)

The question of whether the late medieval Swedish state lived on domain incomes or taxes is largely irrelevant. The main question was if these incomes ever reached a central authority or if they were used by local power-holders. The crown had a domain of its own but much of its incomes came since the thirteenth century from taxes on land-owning peasants. The taxes were permanent but, like the domain incomes, they were in the fifteenth century administrated by members of the aristocratic Council of the Realm (Riksrådet), who divided the country into non-hereditary fiefs (län). The fief-holders collected taxes and used them for maintenance of the regional castle and armed retainers under their command. Control of castles was regarded as the key to state power. This made it possible for the fief-holders to use the resources of the crown in domestic conflicts.

The nobility provided cavalry in exchange for freedom of taxation of their land while the peasant communities provided an increasingly powerful militia infantry. Both forces were effective only if they supported the political aims they were asked to fight for. The nobility and the peasant communities administrated these forces themselves, although the peasants usually elected military experienced noblemen as their leaders when they went to war. The regents (riksföreståndare), who the Council from 1470 elected to run the rudimentary central administration in the absence of a king, were formally only the most important fief-holder, who controlled taxes and domain in the central part of Sweden (Hammarström (1956)).

Finally, there was the Church, which owned land and had the right to raise taxes for ecclesiastical purposes. These incomes were also used for military purposes, primarily castles and armed retainers controlled by bishops. Some bishops were also powerful aristocrats and the bishops were members of the Council. Aristocratic families could thus use incomes from
their own land, from taxes paid to the crown and the Church and from the property of the crown and the Church in the game about power in Sweden.

This fiscal-military system produced several castles, cavalry and armed retainers controlled by aristocrats and bishops and a usually effective militia infantry, led by the regents and noblemen who the peasants trusted. It did not produce an effective navy or modern artillery with heavy guns useful for sieges and operations at sea. Politically, the system frequently produced semi-anarchy, especially from 1448 to 1471. After that, the regents' political ability to cooperate with peasant militias increasingly gave them an advantage in relation to other aristocrats and the Church. They were also able to resist the Oldenburg kings who tried to get control over Sweden. The Oldenburg rulers of Denmark and Norway were in fact also the elected kings of Sweden, but Sweden was locked in a political situation where those who supported strong central power were against the union while those who supported the union disliked the centralising ambitions of the Oldenburg kings. The political result was unusual: an aristocratic republic partly dependent on peasant communities.

In the 1510s, the last regent, Sten Sture (the younger) intended to break this deadlock by making himself king of Sweden. This policy, which met resistance in Sweden, founded in 1520 when Sweden was invaded by the Union king Christian II on land and from the sea. Sten Sture was killed in combat. Lack of efficient naval power had been an unsolved problem throughout the conflict with the Oldenburgs as these rulers had a navy organised in Denmark. They used it for trade blockade, for attacks on the Swedish coast and for support of garrisons in castles in Sweden. The kings frequently spent months on their ships in the Stockholm archipelago, where they could send armies ashore to improve their position during negotiations. Before 1521, financial resources and armed forces under permanent central control were very limited in Sweden. Investments in warships, heavy guns and naval administration were only rudimentary and there were no powerful men with private resources for warfare at sea, either as privateers or as owners of armed merchantmen. It must have been perceived as a problem within the ruling elite that Oldenburg naval power dominated the seas around Sweden but there was no easy solution to it. The regents used their limited centralised resources to send a few ships to sea but in the late 1510s Sten Sture was dependent on friends and contacts in Lübeck and Danzig to administrate even this small force (Glete (1976-77)).

5. After 1521: The rise of a fiscal-military state
When Christian II in 1520 had gained control of Sweden, he started his reign by executing Sten Sture's supporters, in spite of that he had proclaimed an amnesty. Several members of the
aristocracy and even two bishops were among the victims. He also ordered that the Swedish peasants should be disarmed. Christian had correctly identified where the resistance against a centralised state was located but his methods to solve the problems were politically disastrous for himself. Already in 1521, Swedish rebels led by the young aristocrat Gustav Eriksson of the Vasa family, gained control over large parts of the country. In order to conquer Stockholm, other fortified towns and Finland, they did however require sea power to cut off supplies from Denmark. Lübeck was interested in providing that but instead of hiring ships for one campaign, Gustav Vasa took the drastic step of buying a large fleet of German armed merchantmen and recruiting German seamen and soldiers for it. The price was high and it resulted in a financial and political debt to Lübeck. It was however, the classical method of an innovative entrepreneur. Gustav Vasa invested in a new combination of resources for warfare and he paid for it with credits. For a time he became dependent on Lübeck but he gained vital resources for warfare, which soon were brought under his own administrative control.9

When Gustav Vasa was elected king of Sweden in 1523 he took over a country ripe for radical transformation. The changes he achieved were drastic and one result was the he and ten of his descendants ruled Sweden for two centuries (1523-1720). The situation was a window of opportunity for an ambitious entrepreneur in state building. The fight with Denmark was at an end, as the Danish aristocracy deposed Christian II. That king had already killed many aristocratic competitors for power in Sweden while others were politically discredited. The Church hierarchy was weakened by political and religious conflicts and the bishops proved unable to resist the new king. Gustav Vasa had since 1521 used his power as commander of the armed forces and the urgent demands of the war to grab as much administrative power over various resources, including Church property and incomes normally controlled by aristocratic fief-holders. Emotionally and politically, the shock of the events in 1520, a military defeat followed mass executions, must have weakened support for the old decentralised fiscal and military system and made a more centralised system at least tolerable. The Vasa rulers did also their best to keep the memory of the "evil and tyrannical king Christian" alive among the Swedish people as long as possible. The new king could for about a decade use the loans from Lübeck as a pretext for extraordinary taxes but much of these were spent on his mercenary soldiers and his navy.

The most radical change was the decision in the Parliament of 1527 (in itself a political innovation) that the Church should turn over its economic resources to the king. It meant a break with Rome and ultimately a Lutheran reformation but the immediate aim was to improve the financial position of the crown. The economic gain from the Church was
permanent and made it possible for the crown to make new investments and create new structures without running into debt. A considerable part of the new resources were spent on new warships and heavy artillery. These new resources are part of the explanation for the surprisingly powerful Swedish performance at sea in the war against Lübeck in 1534-36 (a part of a Danish civil war), which confirmed that the new navy was effectively administrated. This war also made it clear that the new Swedish monarchy was more powerful than earlier Swedish regimes and unlikely to be deposed by a combination of domestic opposition and foreign power. Sweden had rather suddenly become powerful in the Baltic Sea (Glete (2003)).

The financial administration of the new monarchy was initially very ambitious in its centralising efforts. It attempted to raise taxes from most parts of the kingdom without dividing it into fiefs. After 1527, Gustav I took a step backward and provided members of the aristocracy with considerable fiefs to ensure their support for his control over the church and the state. During the war with Lübeck in 1534-36 Gustav demanded that the aristocrats should shoulder a part of the administrative burden of fitting out ships for the sea from their local resources. He divided them into three regions and asked for one large and one small warship from each. The aristocracy agreed but fulfilled only a part of his demand as the new burden proved more expensive than they had expected. (Glete 1976-77)). After the war Gustav ceased to ask them for this service but it may have weakened his interest in providing the aristocracy with traditional fiefs. They had demonstrated that they were unable or unwilling to provide administrative support to a modern navy. The traditional fiefs were largely abolished in the 1540s and the aristocrats finally lost their traditional right of administrating the resources of the crown on their own (Hammarström (1956)).

From the 1540s, king Gustav increased his administrative control of the territory by the appointment of many local bailiffs and a systematic registration of all landowners and their ability to pay taxes. This was a cornerstone in the new fiscal system, which supported the future military and naval policy of the Swedish state. It was also an investment in a long-term control of the Swedish territory, probably connected with Gustav's ambition to make Sweden a hereditary kingdom for his descendants. That policy was confirmed by a constitutional act decided by the Parliament in 1544. Taxes were not formally increased in this period but it became more difficult to escape taxation and the central fiscal organisation gained detailed knowledge of the resources in the local society. The incomes from the tax-paying peasants, the old royal domain, former church property and the Vasa family's own land, were brought under control of the royal Treasury and the king's local bailiffs before they were spent.

Actually much of the incomes were still spent locally, especially on army forces, but the
bailiff's did no longer take orders about resources from aristocratic commanders of royal
castles. This separation of fiscal and military power into two chains of control made it easier
to centralise resources, a development which was decisive for the growth of the navy
(Hallenberg 2001)).

Gustav I was also the creator of the permanent Swedish army. At first he used the normal
European type of professional mercenaries, both German and Swedish. Contrary to many
other rulers he did not use military entrepreneurs after the first years. Gustav I became a
military entrepreneur himself and the army was recruited, paid, provisioned and armed by the
king, his officers and his civilian fiscal servants. The traditional Swedish infantry was
however the peasant militia, raised and administrated by the local peasant communities.
Swedish peasants were unusually well armed in a European perspective, and they were aware
of that their military potential made them politically powerful. To participate in military
campaigns was however a burden and after war the in the early 1520s the militia was seldom
called to serve.

From the early 1540s, Gustav I introduced a new form of militia under his own control.
Instead of asking the peasant communities to raise a number of men on their own he used his
new local administration to register young men who should take an oath of loyalty to the king
and serve as part-time soldiers in military units led by his officers. The peasants were told that
this was nothing but their old obligation to defend their communities and the king paid, fed
and armed the men when they served him. There were few protests as long as there was peace
and there are few signs of that the peasants at first saw the innovation as a threat or a new
burden. Actually however, the reform was a decisive centralisation of the military potential of
the Swedish peasantry, and when the great wars began the system turned into a severe burden
where tens of thousand of young men were conscripted for long wars through an
administration which the peasant society had lost control of (Viljanti (1957), Larsson (1967),
Lindegren (1980)).

The transformation of the army was also important for naval power. Before the 1620's, the
separation of the king's armed forces into an army and a navy is partially an anachronism
introduced by historians. The military personnel consisted of cavalry, infantry, gunners and
seamen and only cavalry did not serve at sea. The king's officers (hövitsmän) served both at
sea and on land, at least up to the 1560s. A considerable part of the crew of a warships was
infantry and the new infantry organisation provided numerous and cheap manpower for
operations at sea. In the 1540s and 1550s this could be used for the creation of a considerable
galley fleet where the soldiers were oarsmen and amphibious force at the same time. In the
1560s, Erik XIV organised his infantry in four large regiments of which one (Skeppsregementet) was intended for naval service. Seamen could, like soldiers, be raised by conscription in the coastal communities but the difference between conscriptions and the king's recruitment drives for volunteer seamen is somewhat vague in the sixteenth century. Only in the 1560s, when large fleets were sent out against Denmark and Lübeck, seems conscription for service at sea have been important (Glete (2003)).

The Swedish fiscal-military state had thus, from the 1520s to the 1540s, been organised in the form it retained until the 1620s. Arguably, the most impressive achievement of this state in the sixteenth century was to create a powerful and modern gun-armed navy in a society with little maritime experience. In comparison, the transformation of the army was primarily a question of political control and administration, not a decisive step towards a new format of military capability. This does not imply that the new army was inefficient, only that it did not represent a radically new capability. Swedish peasant infantry had been effective as defensive forces already before 1521 and, when properly led, able to decisively defeat professional Oldenburg armies in battle. The infantry organised by the Vasa kings was not markedly better in combat, but it was a reliable instrument for enforcing a monopoly of violence. It could also be used operationally for longer periods and for more advanced strategies, for example at sea, as the state-administrated system for provisioning was more efficient than what local communities and a weak central authority could achieve.

Consequently, the main difference in capability between the Swedish armed forces before and after 1521 was the new naval power. Such power made it possible to defend the coasts, break and enforce blockades, attack enemies at sea and support military operations across the sea. It was this new capability to control the sea, which markedly improved the political position of the new Vasa state in the Baltic. Specialised warships and heavy guns were the sophisticated part of the early Swedish fiscal-military state. The army was adequate for defence of Sweden's borders, and, if supplemented by limited forces of mercenaries, also for offensive operations in the eastern Baltic. An elite army for offensive wars against the most advanced European armies had to wait until the early seventeenth century when the administration of the Swedish fiscal-military state was reformed.

6. Policy-making, naval administration and the transformation of the Swedish state

Naval policy-making formulates patterns of behaviour and develops long-term planning in order to achieve politically determined goals for power at sea. Naval administration is a term for managerial activities and organisational structures, which transform policy into operations
at sea. Policy-making and administration form the critical interface between society, state and naval organisation. Political power and implementation of centrally decided policy require administrative control of resources. Entrepreneurial rulers can search for cooperation with various groups who control resources or who may help in their administration, in order to reduce transaction costs when resources are raised and transformed into armed forces. This section is a brief outline of the interaction around Swedish naval organisation between the dynasty, the four-estate Parliament, the aristocracy and the professional sea officers.

Swedish naval policy and administration under the first two generations of the Vasa dynasty (until 1611) were closely connected to the king's person. The fact that the monarchy became hereditary in 1544 strengthened the dynastic character of Swedish policy-making and administration, as information about vast resources was limited to the ruler and his personal servants in the Treasury and Chancellery. The king was the only individual who had the power and practical ability to channel resources from the fiscal system to naval purposes and he was responsible for that the relevant resources (men, ships, guns, provision, competence) were available at the proper time and place for bringing an operational fleet to sea. Many individuals were responsible for operational fleets, single ships and their crews, shipbuilding and depots of provision and equipment, but no person or board were appointed to lead the central administration of the navy. The navy existed because the king wished to have it and its size, structure and readiness depended on the rulers' strategy and ability to administrate.

Even when the next four generations of rulers (1611-1718) gradually left administration to subordinates they retained a firm hold on policy-making and control of administrative performance. Every new ruler found that control of the Baltic Sea must be a cornerstone in their policy and large resources were continuously allocated to the navy. Arguably they had no choice as their predecessors had left them with an empire around the Baltic Sea, which was interconnected by the sea. The dynasty's role as the initiator and driving force behind the development of a large navy in a non-maritime society made them however also aware of that it was they and no other force in the Swedish society who actually upheld the ability to use and control violence at sea. Naval power was a tradition in the ruling family and its concrete manifestations: warships, an arsenal for guns and a naval yard were located to the immediate vicinity of the Stockholm castle. The idea that Sweden had a dominium on the Baltic Sea and that this was one of the regal rights they must uphold if they should be rulers, was an expression of the dynasty's ambition. This idea had not existed before its rise to power.10

The king's role as centre of naval administration began with Gustav I's organisational efforts in the early 1520s. There is no sign of that anyone else took decisions about when and where
ships should be built, how fleets should be provisioned and how seamen should be recruited. Gustav was assisted by his secretaries, treasury officials, noblemen in charge of naval bases and men with practical knowledge about shipbuilding, guns and seafaring, but many decisions was of an innovative character or closely related to the expansion of dynastic power and the ruler must have initiated them. Many of his letters show dissatisfaction with that his intentions and technical ideas had not been fulfilled. He did not hesitate to call for his senior master shipwright in order to "teach" him how to build ships and galleys (Glete (1976-77)).

Gustav's oldest son Erik XIV (r. 1560-68) continued this tradition and held firm personal opinions about how naval warfare should be conducted: at long distance with guns rather than with infantry and close combat. He had received a thorough training in the administration of the state and many of his letters about details in naval administration have a personal touch. Erik also appointed many sea officers (skeppshövitsmän) in order to fulfil his intentions. Their duties were leadership on operational ships, administration and discipline. They were administrators and leaders of fighting men at sea and not primarily seamen. This policy seems to reflect a royal belief that efficient administration was the key to success in warfare. Erik lost power when his control over the administration faltered, partly due to the financial crisis, which arose in the Seven Years' War (1563-70) against Denmark, Lübeck and Poland. He suffered a nervous breakdown and a rebellion to depose him was soon successful.

Its leader, his brother Johan III (r. 1568-92), did to some extent delegate the responsibility for naval administration to an admiral, but the officers who held that position had to a large extent to rely on the king's central and local fiscal administration for resources. In practice, they worked as commanders of operational fleets and of the main naval base at Stockholm. Johan had the same naval ambitions as his older brother and in spite of that his reign was dominated by a costly war with Russia, which lacked naval power, he maintained a navy large enough to control the northern Baltic. He also recreated a large galley fleet in order to control shallow waters and give the army amphibious capability against Russia. Johan was the only king of the dynasty who did not lead war efforts close to the operational area but he had a good grasp on naval and military policy and was capable to reshaping his armed forces for offensive war in the eastern Baltic, which he intended to dominate.

Johan's brother, Duke Karl, who took over much of the administration of the Swedish state around 1590 when the king's health declined, was not interested in delegation of fiscal, military and naval administration. As a reigning Duke he had been a highly entrepreneurial administrator of a large province (Hedberg (1995)). He was Sweden's leading mercantile ship-owner and he traded with Western Europe. In his youth he had hoped to become a naval
entrepreneur for some foreign ruler, for example Philip II of Spain, and he had built major ships in the 1570s. Karl was in fact a naval administrator of his own and as regent of Sweden he initiated a major investment program for expanding the navy under his own control.

When Johan III's son Sigismund (r. 1592-99), who in 1587 had been elected king of Poland-Lithuania, paid a visit to his hereditary kingdom in 1593-94, he became involved in a political and administrative struggle about fiscal, military and naval organisation with Duke Karl and the aristocratic Council. The Duke intended to keep administration in his own hands; Sigismund preferred a system where provincial governors administrated Sweden under control of the king from Poland, while the aristocrats wished to create an articulated central and regional administration with permanent officials of the state in charge of well-defined responsibilities. In that system an Admiral and a Deputy Admiral should be responsible for naval administration. Sigismund, who had no Polish navy, was anxious to have some Swedish warships under his personal control but both the Duke and the Council were negative to that that warships and guns belonging to the crown might even temporarily be transferred to Polish ports. Without ships under his control the king was dependent on the administrative structures in Sweden if he even should be able to travel safely between his two countries.

By 1598, the conflict about power in Sweden had escalated to a civil war. Karl took control of as much resources he could, including warships. In Finland, men loyal to Sigismund acquired warships under their control. The main part of the fleet was laid up at Stockholm and both Sigismund and Karl tried to gain control over it. The Duke was more successful in that than the king and the latter had to return to Sweden in 1598 with an army carried by merchantmen hired from foreigners. He issued written excuses to his people for that and blamed the Duke who denied him access to his ships. Sigismund lost the civil war, not the least because the Duke controlled the sea and could keep army forces in Sweden, Finland and Estonia loyal to the king divided and defeat them in detail.

As regent and king, Karl IX (r. 1599-1611) expanded the navy without changing the administrative system. He did appoint several admirals who were placed in charge of various operational and administrative tasks but they were often given other tasks as well and they only served for brief periods. Karl must therefore be regarded as personally responsible for the naval disasters in 1611, which were caused by inability to bring more than a fraction of the large fleet to sea when Denmark attacked Sweden. Not even in 1612 was a considerably reduced fleet able to sail in full strength (Marinstaben (1937)). As much else in the Swedish political and administrative system, time was ripe for change of the structures originally developed by Gustav I up to the 1540s.
Most of the Swedish nobility were rather poor and they soon found that the new state was a good employer. The Vasa kings used many noblemen as officers, judges and administrators, although they preferred well-educated commoners as secretaries and treasury officials. The Council of the Realm remained a closely-knit network of aristocrats, normally large landowners. Some of them were used by the kings for military, naval, diplomatic and administrative tasks but as a group the aristocracy had lost much power to the ruler, compared to earlier conditions when they had run much of the administration of the state (Samuelson (1993)). The Council could advise the kings but its members had little influence over how decisions were implemented. Some of them found that they became scapegoats for failures in war, when they thought that the administration should be blamed. The political conflicts and the civil war in the 1590s became a traumatic clash between many aristocratic families and the victorious Duke Karl. Several members of the Council were executed, others fled to Sigismund in Poland and the new king was deeply suspicious towards most aristocrats. This was part of the explanation for his reluctance to delegate authority over administration. The administrative process was however increasingly choked by the aging ruler's attempt to control hundreds of small administrative and military units with a central staff but with few senior officer and bureaucrats in intermediate positions.

The accession to the throne of his son Gustav II Adolf (r. 1611-32) and the rise of a new generation of aristocrats made it possible to make a fresh start. It began with that the aristocrats demanded major concessions: primarily a monopoly on senior positions in the state and a binding promise from the king not to start offensive wars without consulting the Council and the Parliament. The other side of the coin was that the aristocracy and the Parliament now became co-responsible for the wars they authorised and had few excuses for not doing their utmost for supporting the state. Gustav Adolf turned out to be a master in making offensive warfare looks like the outcome of a prudent defensive policy. He also soon showed great ability as a military reorganizer and innovator. The result was that he gained authority to increase the armed forces and give the whole state a new organisation, optimized for offensive warfare. The wars were successful, and did not touch Swedish territory, which made them endurable for those who paid them. It was a second Vasa success in political and military entrepreneurship, almost a century after the foundation of fiscal-military state.

A series of organisational reforms, formalised in the constitution of 1634, reshaped the administration and the armed forces. Local administration was brought under control of civilian provincial governors and the many company-size army units were formed into permanent provincial regiments with fixed regions of recruitment. The central administration
was divided into five (later more) departments, each headed by a board (*kollegium*) led by aristocratic members of the Council. Each department was assigned financial resources for specific purposes according to a yearly budget (*stat*), it had its own administrative staff and the members of the board were responsible for that the resources they received were used with efficiency. The king did retain power over policy-making through his rights to decide about budgets and to appoint all high-ranking servants of the state and by his control over the armed forces as commander-in-chief. As before, much of the real power of the king depended on his personal ability as political and military leader. The difference was that the efficiency of state was less dependent on the ability of the king.

A large part of the aristocracy became high-ranking civil servants or senior officers, although they were supposed to pass a career from lower positions before they reached high offices. The navy was one of the five central departments of the state, led by the *Amiralitetskollegium* under the Lord High Admiral (*Riksamiral*). The first *rikسامiral* under the new system was Gustav Adolf’s illegitimate half-brother Karl Karlsson Gyllenhielm. He was for many years seconded by admiral Klas Fleming, one of the most able administrators of his generation, who often were asked by Gustav II Adolf and the Chancellor Axel Oxenstierna to charge administrative tasks outside the navy. Fleming had a major role in the administration of both shipbuilding and the creation of a permanent recruitment system for seamen.

A few effects of these reforms are easy to observe. The aristocrats became integrated with the state and eliminated as possible leaders of opposition against resource extraction and large-scale warfare. The state gained a rational organisational structure with a hierarchy where every level had the practical possibility to control, co-ordinate and support the lower levels. Decision-making could be delegated from the top to a level where a board, an officer or a civil servant could observe realities closely and take appropriate action. In contrast to many other European states, the Swedish aristocracy did not try to limit the power of the state. Instead, they tried to maximise their power over it and justify this by showing administrative and military efficiency. The most dramatic result was visible in the army where generals and colonels got and used the opportunity to train permanent regiments into elite units. Both the elimination of aristocrats as potential opposition and the new organisational structure of the state substantially reduced the transaction costs for achieving an efficient fiscal-military state.

The navy did not grow in terms of tonnage compared to the reign of Karl IX, but its armament and its readiness was markedly increased, especially compared to the dismal performance in 1611-12. Under Gustav II Adolf, the navy was primarily used for large-scale
amphibious warfare in the Baltic together with the army. This was the key to success in the Swedish conquest of Riga in 1621 and the following occupation of Livonia, the occupation of Prussia and the Vistula estuary in 1626 and the large-scale invasion of Germany in 1630 when over 30,000 soldiers were sent across the sea to Pomerania. The army and navy had developed the ability to attack hostile territory from sea and supply it with resources from the sea faster than the enemy was able to gather by land. As administrative, military and naval achievements, this was beyond what the Swedish state had been able to accomplish before 1611. In fact it was beyond what most European states were able to achieve at that time (Glete (forthcoming)).

The Swedish four-estate Parliament was very much a creation of the new Vasa monarchy. It had medieval predecessors but many decisions requiring consent from below had earlier been taken on the regional level. The centralised Parliament made decision-making faster and more homogeneous and this reduced the transaction costs for resource extraction. However, in the sixteenth century the Parliament had no direct contacts with military or naval policy-making and administration. The Estates never decided that an army or a navy should exist as permanent organisations of the state or that the crown had the right to conscript men to these organisations. It had however given the king the financial means to maintain them, especially with its decision to confiscate church property in 1527. The Estates had also the possibility to make petitions and ask for redress if they had objected to that the sons of peasants were conscripted as soldiers and seamen. They did however not dispute the principle, although they might question how it was implemented.14

The Estates also frequently authorised temporary extraordinary taxes to finance war efforts. However, in the sixteenth century the Estates were not the only way for the king to raise money for warfare. He could by tradition ask for support from local society for defensive wars and with the improved fiscal organisation developed by Gustav I, such direct appeals were often effective. Typically, they were about food and housing for soldiers and seamen during operations or for their winter quarters. Especially Finland was much exposed to such resource extraction during the long war with Russia in 1570-95.

The political crisis of the 1590s and Duke Karl's usurpation of power led to that the Estates were called more frequently to make the policy of the ruler legitimate. As the war efforts also became increasingly offensive and concentrated to Livonia and Russia, at a considerable distance from old Swedish territories, the old informal system of resource extraction for warfare was less useful. It became more important to raise resources in Sweden and transfer them to the areas of operation, normally across the sea. The Estates were repeatedly asked to
authorise new taxes and it became the custom to ask for their approval before new large levies of soldiers and seamen were made. No special funds were voted for the navy but as it was more dependent on centralised resources than the army, the increased taxation authorised by the Parliament made it easier to run the navy. Centralisation of resources was also favoured by the great increase in Sweden's foreign trade in the first half of the seventeenth century, which provided the state with more incomes from customs (Sandström (1990)).

The navy did also require more seamen and these must be available at a quick notice. Compared to the reorganisation of the army, which from the early 1620s followed fairly straight lines, the question of how the navy should recruit and administrate its seamen was more problematic and subject to many negotiations between the state and the three non-noble estates: the burghers, the peasants and the clergy. The navy wished to have a sufficient number of men quickly available for a total mobilisation but it did not wish to pay for more men than was needed in periods when most warships were laid up. There was no great domestic stock of seamen to recruit or conscript and it was not believed to be safe to rely on the seamen from seafaring communities around the Baltic Sea. They could be recruited as reinforcements when the fleet already controlled the sea but, in order to gain that control, the navy required men who lived not too far from the main naval base in Stockholm. Finally the system must be cheap in comparison to the number of men it produced. The state searched for a recruitment system providing many low-paid men quickly with low transaction costs.

From 1604 up to the 1630s the Estates were asked to participate in decisions about various new burdens on peasants, burghers and the clergy in order to ensure that the navy had a sufficient cadre of seamen. The king and the admirals were usually careful in asking the Estates to participate in the development of a system that should be lasting, although they avoided speaking openly about the permanency. The Estates frequently complained, or said outright no to various demands from the navy but the fact that they met almost yearly made it possible for the naval administration to discuss adjustments of the system and use political opportunities to gain successive concessions by compromises. For the burghers, the seamen became a major part of their obligations to the armed forces, as the towns often were exempted from the recruitment to the army. The towns were actually in a weak position towards the state as they were dependent on various privileges and the state was primarily restrained by its own ambition to make the towns economically viable. For the peasant society the navy was a different type of burden compared to the infantry. Soldiers usually did not return from the war once they were conscripted, but seamen came back every winter. Local society must find a useful place for them when they were not in service and for the navy it
was important that the seamen were kept at good health and in reasonably good social conditions when they were on leave at home. If not, recruitment would be next to impossible.

The final system (båtsmanshåll) was that the navy's seamen were volunteers who lived in towns and coastal communities when the navy did not require them. The towns and the communities should provide them with housing and employment, which they however must leave at a short notice when the navy called them. The practical implementation of this system and the adjustments of the taxes on land, which it required, were negotiated between sea officers and local communities during the 1630s. Sea officers were also appointed to supervise the system, which for administrative purposes divided the seamen into companies and regiments when they did not serve with the fleet. In order to gain a sufficient number of seamen the army (Krigskollegium) must in 1634 grumbling give up certain regions of recruitment to the navy. The men recruited in this way often had some experience of fishing and small vessels but the navy had to train them in handling square rigs and heavy guns. From 1644 the Estates increased the burden on towns and peasants by promising to find a considerable number of temporary men during such years when the navy was fully mobilised for war (fördubbling). This system remained the backbone of Swedish naval manning until the end of the sailing-ship epoch.

The burghers were induced to support the navy in other forms too. At a session with the Parliament in the early 1629 they were asked to form a trading company, which should build or buy 16 armed merchantmen, which (against payment) should reinforce the navy when required and otherwise sail on long-distance trade. Formally, it was not a new burden but the towns had to find resources for major investments beyond their normal maritime ambitions. After service in the navy for the invasion of Germany in 1630 the ships were used for trade with Western Europe but the result was not a success and the company was dissolved in 1636 (Norenstedt 1984). During the war with Denmark in 1643-45, Sweden had to hire a fleet of Dutch armed merchantmen with the Dutch-Swedish merchant and industrialist Louis De Geer as entrepreneur and financier. This proved very useful but the cost was almost prohibitive. For service from spring to autumn the lease of around 20 armed merchantmen with crews, paid and fed according to Dutch standard, cost 735,835 daler silvermynt. The total naval estimate for the state-administrated Swedish navy was in 1644, a year of full mobilisation, 608,619 daler silvermynt. This navy was at least three times as large as the hired fleet and it had more heavily armed warships. The figures are not exactly comparable but they are a telling demonstration of that Sweden could not afford to lease naval power during long wars and that the state-administrated naval system actually was cheap in an international perspective.16
From 1645, the government introduced a new custom policy that favoured Swedish-owned and Swedish-built armed merchantmen if they were suitable as auxiliary warships. This led to a rapid increase in the number of such ships. In the wars of 1657-60 and 1675-79 there were more ships available than the navy could hire. The cost to lease them was much less than it had been to hire Dutch ships in 1644. Many of the armed merchantmen, which after 1645 sailed under Swedish flag and with Swedish crews may actually have been owned by Dutch capital, which in this way avoided both Swedish custom duties and the Danish Sound Toll, which ships under the Swedish flag were exempted from.

From the 1620s to the 1670s the navy was administrated by the Amiralitetskollegium. Queen Christina (r. 1632/44-54) showed the usual Vasa interest for naval policy and from the mid-1640s a steady program of ships built to at least roughly homogeneous designs replaced the veterans from her father's large shipbuilding program. Her cousin and successor, Karl X Gustav (r. 1654-60), was deeply engaged in army administration and command of the main army, which he in 1655 brought to Poland for a new continental war. In his last years of rule, when he mainly fought Denmark and the Dutch, naval warfare and administration became more important to him. He personally directed naval operations and he took important initiatives, among others by recruiting English master shipwrights to replace Dutch technology, which had been prevalent in Sweden for half a century.

Continuity in naval policy and administration was ensured by the aristocratic admirals, however (Wendt (1950)). Especially the regency for Christina (1632-44) became a test if aristocratic leadership worked, as there was no member of the royal dynasty who supervised it. The result was to the credit of the aristocrats. The performance of the navy in the war against Denmark in 1643-45 was far from perfect but vastly superior to that of Karl IX's personally administrated navy in 1611-12, and the efforts to bring as much naval force to sea for as long time as possible finally ended in a decisive victory (Munthe (1905-10), Probst (1996)) The performance of the navy in the war against Denmark and the Dutch Republic in 1657-60 was also fairly creditable, and the Dutch had to concentrate a quantitatively superior fleet to gain control the Danish straits in 1659 (Askgaard (1974)).

Tensions were however rising between the aristocracy, which had been able to enrich itself by crown land for loans and various services during the long wars and the three non-noble estates. The latter thought that a few rich families had appropriated more than they deserved and that this undermined the fiscal stability of the state. Up to the 1650s the aristocratic members of the Amiralitetskollegium had experience as naval commanders before they were appointed as members. It was the result of that some noblemen from old families, like Klas
Fleming, Erik Ryning, Åke Ulfsparre and Klas Bielkenstierna, had chosen a naval career and were available when appointments should be made. Mentally, aristocratic admirals might be more admirals than aristocrats. Admiral Herman Fleming, Klas Fleming's son who had been trained as his successor, became from 1655 the leading financial administrator in Karl X Gustav's attempt to recover a part of the crown land transferred to the aristocracy (*reduktion*). He followed this policy with determination and he was evidently personally concerned for the long-term effects on the state if the financial policy was not changed. His experience must have taught him that the navy required large resources under central control. This policy made Fleming a hated person among the aristocrats (Dahlgren (1964)). After Karl X Gustav's death in 1660 they denied him a place in the regency for Karl XI (regency period 1660-72) either as Lord High Treasurer, to which the late king had appointed him on his deathbed, or as Lord High Admiral, a position for which he put up his candidature in 1664.

During this regency the administrative and naval competence of the *Amiralitetskollegium* markedly declined. The Lord High Admiral from 1664 was field marshal Gustav Stenbock, an experienced military leader but without much imagination as a naval administrator. Nils Brahe and Klas Stiernsköld, the other two members of the Council, who from 1660 led the navy, were scions of important families who had been appointed admirals without any experience of the navy and without any special administrative capacity that qualified them for leadership of a highly complex organisation. No professional sea officer was appointed member of the Board during the regency period and those who had been members of it in 1660 gradually disappeared or served outside Stockholm. The Board was restrained by the naval estimates, which the regency had fixed at 300,000 *daler silvermynt* yearly, but as Councillors of the Realm the three leaders of the Board was also co-responsible for the tax and fiscal policy which placed this restrain on the navy (Wendt (1950)).

From 1661 to 1674, no major fleet was commissioned for war, an unprecedented long period of peace. One obvious effect was that the men on the Board lacked practical experience of how a fleet should be mobilised and how it should be organised if its readiness for war should be maintained. A probable effect is that officers were commissioned and promoted by a Board with low ability to judge their merits. A possible effect is also that ambitious young men without the right family connections avoided choosing a naval career when the road to the top seemed to be blocked for them. The less centralised army with its many regiments as centres of patronage must have opened more windows of opportunities for such men than the navy.
Politically, the second regency period was dominated by a cautious foreign policy, which avoided wars, and a restrained fiscal policy, determined by the aristocrats' unwillingness to increase taxation on themselves. When they were unwilling to make sacrifices for the state they also became unable to ask the Estates to make major increases in the taxes (Rystad (1955)). The navy built many large ships, but the material readiness for war became increasingly deficient. Officers and seamen were kept on the rolls, but they were seldom at sea and their wages were continuously a year or more in arrears, in spite of the peace. Some of the material deficiencies, for example the serious lack of guns, which had developed in the 1660s, were hastily made good in 1673-75 before the fleet was sent out to fight the Danes and the Dutch in a new war in 1675-79. The deficiency in professional competence, which had developed since 1660, took longer time to find remedies for.

The years 1675-77 became the most disastrous in Swedish naval history. The navy of Karl IX had been caught unprepared in 1611 and that made it impossible to take the war to the enemy, but the loss of control of the sea in 1675-77 meant the temporary loss of the Swedish territories in northern Germany, conquered in the Thirty Years War. That was a disaster for Sweden's position as a major European power. It was revealed that the navy depended on active and energetic entrepreneurial efforts by a competent leadership and systematic maintenance of naval competence within the naval organisation. These competencies could not be improvised at a short notice.

The young king Karl XI (r. 1660-97) began his reign at the end of 1672. He became gradually aware of that the financial and political situation left by his regency was problematic but it was the failures of the navy that made him furious. It gave him and a group of reform-minded men around him strong political arguments against the aristocracy. One of these men was Hans Wachtmeister, who after a rapid naval career was appointed commander-in-chief of the navy in 1678. He held that position until 1713. At the decisive session with the Estates in 1680, Wachtmeister became the leading spokesman for the king and the lower estates. He demanded an inquisition of the Council's regency policy (räfst), a far-reaching reduktion of crown land turned over to the nobility in the seventeenth century and increased peace-time taxation on the nobility. He emphasised that the state's permanent incomes must be much increased if the army and, especially, the navy, should be maintained at a level that Sweden's defensive commitments required. The decisions taken by the Parliament, followed by decisions taken by the king, was a crushing defeat for the aristocrats, who lost their political power and considerable parts of their property (Grauers (1946)). The winners were the king, who gained absolute power and the many career officers and civil servants who were
ensured regular payments of their wages and better opportunities for promotion to high ranks according to professional merits.

The decisions in 1680 were followed by a reorganisation of both the army and the navy. It was most important for the latter as a drastically increased flow of incomes for centrally administrated purposes became available. A large shipbuilding program was started, the material readiness was ensured, a new large naval city, Karlskrona, was built in southern Sweden in the 1680s and the number of peasant-seamen in the båtsmanshåll were much increased. Most of the latter organisation was transferred from central to southern Sweden, so that thousands of men should be able to come to Karlskrona in a few days if required. It was supplemented by a nucleus of full-time seamen and a system of enrolment in the former Danish provinces. In that seamen were given a yearly bonus if they promised to turn up for naval service when required. It was costly reforms, which arose opposition but Wachtmeister, who normally enjoyed support from Karl XI fulfilled them. Both men were determined to create a large battle fleet with good professional competence in the use of the line-of-battle tactics which had developed in Europe in the latter half of the seventeenth century. The naval organisation became highly focused on battle fleet strength and tactics and the ability to control the sea between Sweden, Germany and Denmark (Wendt (1950)).

The navy was from the 1680s dominated by professional officers and training as seaman or naval gunner became necessary for a commission as sea officer. Political and social connections outside the navy were no longer decisive for reaching senior positions and admirals were no longer recruited from other organisations in the state. This does not mean that the navy was wide open to talents, and there were few officers raised from the lower deck. Instead, sea officers were increasingly recruited from sons of sea officers or civilian naval administrators and a considerable number of naval dynasties developed in the eighteenth century. The professional competence, which undoubtedly was important for promotion, was to a large extent developed within a network of officer families. Eighteenth century political power-holders became increasingly suspicious towards the naval establishment in Karlskrona. They believed that naval power was very important for Sweden but they often wondered whether the existing naval administration and leadership were fully competent (Glete (1994)).

The 1680s had in fact been the beginning of a long-term rift between the navy and the centre of the fiscal-military state. The transfer of the whole fleet and its central administration from Stockholm to Karlskrona meant that personal and informal contacts between sea officers and the central state bureaucracy were markedly reduced. Instead, a tendency to preserve
positions and avoid changes with uncertain results prevailed. The change began to be visible after the accession to the throne of Karl XII (r. 1697-1718), the first of the dynasty who had grown up without daily contact with the naval base in Stockholm, its ships and its men. During the Great Northern War (1700-21), the king, the various army commands, the central administration in Stockholm and the navy in Karlskrona gradually developed into separate directions and began to show signs of sub-optimization and myopic behaviour. The main problem turned out to be that there were no central authority with ability and authority to enforce radical changes, reallocation of resources and adaptation to a new strategic situation.

The new situation was that Russia had appeared as a naval and amphibious power in the Baltic. After 1700, Tsar Peter I skilfully used the fact that Swedish army and navy lacked capability to operate in archipelagos and shallow waters. In the 1710s, Denmark began to exploit the same weakness in the Swedish system during campaigns in Pomerania and the border between Sweden and Norway. Karl XII had in 1700 a large and excellent army and the largest and most professional navy a Swedish king ever had sent to sea. He lost the war, not to widely stronger or more professional forces, but to armed forces combined in a way he and his subordinates were unwilling and unable to imitate until it was too late. The war was fought about control of the Baltic Sea and its littoral territories but, instead of using the advantages Sweden had in fighting close to its domestic resources and in regions where sea and land power could cooperate, the king tried to fight decisive campaigns deep on the continent, where number of men and distances were decisive. The size of army forces that could be used for operations in the Baltic region was largely determined by logistical restraints, not by the total strength of the participating armies. These restraints could be lessened by the use of the sea for transports of soldiers and supplies. Control of the open sea and strategically important shallow waters might decide wars. Sweden was generally successful in controlling the open sea but the shallow waters were left to the enemy to control and this was frequently decisive.

The Swedish empire in the Baltic had once been created with amphibious capability, judicious use of the navy's ability to create operational freedom for the army and naval support for army logistics. In that process, organisational structures were subordinated to operational requirement. Oared forces, mainly manned by the army were established whenever the operations demanded by the king's policy required it. In the early eighteenth century, the Swedish fiscal-military state and its armed forces were primarily interested in preserving existing organisational structures. Instead, tsar Peter showed the flexibility and entrepreneurial ability to develop a navy, radically reform his army and his administration and combine army and navy for offensive operations in shallow water. His reforms are generally
regarded as imitations of Western European models, but in amphibious warfare he was in fact highly original and the most able innovator of his age. His Swedish adversary did for too long believe that entrepreneurship and radical innovations could be met with more professionally skilled military and naval forces without equal ability to achieve new combinations. Only in his last years, Karl XII became an active innovator. It was too late.

7. The fiscal organisation and the navy
The division of revenue raising and operational armed forces into separate organisations with different hierarchies of control is fundamental for the development of a fiscal-military state under effective central control. This can be achieved if all incomes to the state are centralised before the central authority spend them on the armed forces. The Swedish state was however also anxious to make direct use of the local material and human resources it could raise for military and naval purposes. Consequently, many resources were brought under control of the state's local fiscal administration but spent locally by the naval and military administrators. This was related to the rulers' entrepreneurial policy of making use of cheap and underutilized resources in the Swedish society and of keeping transaction costs low. The resource base for the navy was the taxes on land, custom duties on trade in Swedish ports and the crown's ability to use its various claims on timber, iron, copper and the subjects' labour in ingenious combinations. Swedish sea power was the projection of domestic resources in manpower, forests, metallurgy and agriculture, transformed and administrated by the fiscal-military state into operational fleets. The entrepreneurial efforts behind the Swedish fiscal-military state might be analysed as systematic attempts to find and use cheap, local resources in an agricultural society and convert them for warfare with low transaction costs.18

Originally, Gustav I raised taxes like most states did: in cash. Around 1540, his tax policy radically changed. He became interested in raising taxes in kinds and services: food, iron, timber and labour and he developed his local administration in order to handle resources rather than money. In older literature this tax system was described as primitive but it is now understood that it was a conscious change to a new and more entrepreneurial system for resources utilisation. It was also connected with a systematic survey of the available resources, primarily detailed lists of peasant households. (Hammarström (1956), Odén (1966), Hallenberg (2001)).

The king was interested in direct administrative control of resources which he in this way could raise with lower transaction costs than if he had first asked for money and then bought the same resources on the market, often from his own tax-payers. Food, which had been
raised as taxes, was issued to soldiers, seamen and shipbuilders, warships were built with timber felled and transported by peasants and iron, paid as taxes in mining district, was used for shipbuilding and weapon. Oaks growing on peasant's land were declared to be the property of the crown and reserved for the navy. The burghers of Stockholm were, at least in the seventeenth century, required to brew beer for the navy as a part of their taxes. The conscription of soldiers and seamen and the permanent båtsmanshåll could be systematically enforced with the state's detailed knowledge of the number of farms and inhabitants.

The long period when the dynasty did not use private contractors might be a result of that no private entrepreneurs of sufficient strength and imagination yet had appeared in Sweden. The Vasa dynasty both raised and organised physical resources and men in partially the same way as tax-farmers and military entrepreneurs did for the states in other parts of Europe. It could however do that with low transaction cost because the Vasa state used various regal rights and political means of persuasion and because the fiscal administration accumulated much information about the resource base. The state did also act as a large-scale merchant in various products within Sweden and sold some of them on the international market in exchange for other products which were useful for their armed forces.

There were both advantages and disadvantages with this system. Resources had to be raised at places where underutilised and cheap resources could be found rather than where they were needed. Naval shipbuilding is a case that illustrates the possibilities and problems. Initially most warships were built at Stockholm, the main base and yard where a cadre of experienced shipwrights was created. Gradually, when shipbuilding increased, it was decentralised and from the 1570s to the 1610s nearly all warships were built at various places along the coast and in the Lake Mälaren, but rarely at Stockholm. Several major ships were built at yards in rural regions, not in towns. This policy can only partly be explained by the utilisation of local forest resources. It is more likely that the ability to use local labour and taxes paid in food also were important. The disadvantages were that ships often took several years to build and that technical progress may have been slow.

Gustav II Adolf and the chancellor Axel Oxenstierna were personally interested in experiments with private entrepreneurs as contractors for various administrative tasks. They lived in an age when such entrepreneurs, primarily of Dutch origin, became available in Sweden. This was for a time important for shipbuilding and administration of shipyards, which to a considerable extent were turned over to entrepreneurs of Dutch origin. The increased taxation in cash made it easier to concentrate the earlier decentralised shipbuilding into two production lines, at Stockholm and Västervik, and make experiments with more
market-orientated administrative systems based on incomes in cash rather than in kind (labour, timber, provisions). Especially in the 1620s, the entrepreneurial system was much favoured and the maintenance of all warships as well as the supply of sails, cordage, cables and anchors to all ships was turned over to entrepreneurs. Some of these were burghers, others were Dutch naval shipbuilders and Scottish sea officers who already had served the in navy. The Västervik yard was leased by Dutch-born entrepreneurs, who also were tax-farmers in the region near the yard. They took over the crown's earlier entrepreneurial activity of transforming locally raised taxes into resources for naval power.

The period of large-scale contracting of the core of naval administration turned out to be an experiment. Apparently the transaction costs were not reduced sufficiently to make it permanent. It was followed by a period when private entrepreneurs became important sellers of warships and guns, while the navy under the Amiralitetskollegium ran its main naval base and those parts of the administration, which were important for the timing of a mobilisation. When the navy moved to Karlskrona, private participation in naval shipbuilding practically ceased but the navy gradually developed a network of contacts to the market for the supply of guns, timber, tar, sails, hemp, anchors, provisions and other products which were essential for a fleet. The entrepreneurial role of the state for naval power had been concentrated to that of a naval arsenal where resources were brought together, kept in store and turned into a serviceable fleet. State administration of physical resources all over Sweden for the navy through the fiscal organisation was increasingly a thing of the past.

8. Conclusion
Navies are complex organisations and such organisations are the result of entrepreneurial efforts to form innovative combinations of resources and reduce transaction costs. The development of a large sixteenth and seventeenth century navy in a country with few private maritime interests and skills may from a resource-orientated perspective look surprising. From an entrepreneurial perspective it is however not a great enigma.

Sixteenth century Sweden had vast underutilised resources for maritime enterprises: oaks for shipbuilding, pines and spruces for mast and yards and production of tar and pitch, iron, copper and waterpower for metallurgical processes, long coasts with many good harbours and a considerable population living close to the sea. It was not a major producer of certain naval stores, such as hemp and flax, but the great trade route from east to west for such products passed through the Baltic Sea. Sweden had a great potential for entrepreneurial activities of a maritime character: industry, trade, shipping or protection-selling. It was partly accidental that
the great maritime entrepreneur should be a protection-selling dynasty, which developed naval power for control of the sea and turned that control into a bridge for territorial expansion around the Baltic Sea. More mercantile and peaceful alternatives are possible to imagine. The early modern Baltic Sea was an important highway for maritime trade and by the eighteenth century Sweden had developed a maritime economy with a viable shipbuilding industry, international shipping and a large seafaring population used to long-distance voyages. Alternative entrepreneurial efforts might have created these structures earlier.

The accidents, which made early modern Sweden start along a path as a naval rather than a maritime power, have been outlined in this paper. The Swedish fiscal-military state was created around skills to raise and administrate large resources for protection-selling and warfare. These skills were in many respects the same as those which created maritime ventures in a world where trade and violence were closely connected. The two first generations of Vasa rulers were genuinely interested in shipping, trade and technology, they wished to widen Sweden's contacts on the international market and they were merchants in a large scale on their own. They were however also raised in an aristocratic environment where ruthless power struggles between members of the elite were normal and where the elite saw physical and political protection of peasants and trade against violence as the most profitable way to get access to resources; taxes and custom duties.

A series of accidents turned out to make one aristocrat of the Vasa family much more powerful than the other aristocrats in Sweden. One of these accidents was that Gustav Vasa had the imagination, luck and necessary contacts to form naval power of decisive importance in a critical phase of a power struggle. He realised that he might use naval power to make himself and his administrative talents more central for both the elite and the peasants. Once started on this way he continued to combine his political and administrative skills in raising resources from the society with his administrative and technical ability to transform resources into naval power. Administrative, technical and operational experiences accumulated within the organisation developed by the Vasa rulers and when the second generation began a policy of expansion in the Baltic there were hardly any return or alternative. The Swedish state had to maintain a strong navy or give up central parts of its political aims.

Gradually, the state and the society adjusted to a policy of expansion and warfare. The rise of the four-estate Parliament was closely connected with the dynasty's demand for resources for long-term organisational commitments. A formal, centralised decision-making process replaced informal and decentralised forms of political dialogues between the ruler and the society and the aristocratic elite, the lower nobility and representatives for the lower estates
were persuaded to contribute to war efforts. This favoured large-scale offensive warfare, not the least the navy, which as a complex organisation dependent on investment in capital goods required centralised resources.

During the sixteenth century the limit to growth of Sweden's naval capabilities was the rulers ability to mobilise resources and his ability to administrate them in an efficient way for naval power. After the initial, and expensive, acquisition of naval power from Lübeck in the early 1520s and Gustav I's brief attempt with aristocratic participation in naval administration in the mid-1530s, the dynasty ran the navy as its own enterprise. The king's personal ability to administrate was a real restraint, not a formality. It became obvious in 1611, when the ailing Karl IX had mismanaged the navy, and not matched his aggressive foreign policy against Denmark with sufficient naval preparedness. In the future, rulers understood that they must entrust the implementation of their naval policy to a staff of men with authority and patronage. Like in other part of the Swedish state, such reforms became part of the "great compromise" between the dynasty and the aristocracy. The aristocrats were integrated with the state's central administration, but like the ruler, they were supposed to work hard to deserve the power they had gained.

A generation of admirals from aristocratic families did their best and at least two of them, Klas and Herman Fleming, did also work hard to keep order on the state finances. In the second regency period (1660-72) an aristocratic group more concerned with their privileges and gains from the past took control of the navy and avoided to take radical measures to solve the state's fiscal problems. They became, largely well-deserved, scapegoats for the naval failures in the war of 1675-79. It was from that perspective logical that the fall of aristocratic power started in the navy and that the navy was placed under a leader, Hans Wachtmeister, who was personally close to the king and his leading spokesman when aristocratic power was destroyed in 1680. Men like Herman Fleming and Hans Wachtmeister, who had strong ambitions to make the navy into an efficient organisation by entrepreneurial efforts of their own became alienated to the aristocratic system. It was not efficient enough in centralising resources and developing skills for a complex organisation like the navy in an age when international competition required markedly increased resources.

The navy and other organisations of the state, which appeared out of the political upheaval around 1680, were for about four decades formally obedient bureaucratic and professional instruments of the absolute king. This was not the end of the story however. Swedish absolutism became thoroughly discredited by the failures of Karl XII's wars and his stern fiscal policy. Absolutism fell after his death in 1718 but the bureaucratic and professional
organisations of the absolutist state continued their activities largely unchanged. Bureaucrats and officers disliked the long war and the high taxes as much as other subjects and made no efforts to uphold the power of the ruler. Without a strong ruler, the officials of the state became free to use the resources in the interest of preserving the power of the bureaucrats, not the least the possibilities to provide employment for their younger relatives. The many bureaucrats and officers who had served the absolutist state had a strong, even decisive influence on Swedish policy in the following half-century, until Gustav III re-established strong royal power in 1772. The navy had in some respects become one of a number of bureaucratic fiefs, where families controlled the resources of the state in their own interest.

The early modern Swedish navy certainly required a strong tax state. It is even difficult to imagine it without such a state. The state provided the navy with large-scale centralised resources for warfare and investments in capital goods. But if such resources should be used with efficiency, the navy also required a wide array of technological, maritime and administrative competencies. These competencies had to be created or imported by the state and the ruling elite had to learn to administrate them. The rise of a large and complex organisation like the navy is a strong indication of that the early modern Swedish society was markedly open to innovations and the rise of men, Swedes and foreigners, with new talents. Social and political obstacles to innovations and social mobility are easy to observe. It is however also possible to observe that political interaction between rulers, aristocrats, the lower estates and men who had professional competence rather than inherited privileges, ended in that the latter gradually rose to power. This favoured the navy as it developed in an otherwise not very favourable environment. This confirms the hypothesis that navies may have a connection with societies where competence is rewarded with social rise and broad participation in political decision-making. Such societies make it easier to achieve innovative solutions to the problem of handling scarce resources in a rational way.
References


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1 The paper is based on a forthcoming study by the present author: Power through organisation: Naval policy and administration in the Age of Swedish empire-building in the Baltic, 1521-1721. Older works on Swedish naval administration and operations are Zettersten (1890-1903) and Svenska flottans historia (1942-45).

2 This section is mainly based on Glete (1993) and Glete (2000).
3 See Ole Feldbaek's contribution to this volume.

4 See the contributions of Luciano Pezzolo and C. A. Davids & Marjolein 't Hart in this volume.

5 This section is mainly based on Glete (2002), esp. ch. 2.


7 Nordic Medieval history until 1520: Helle (2003). See also the contribution of Ole Feldbaek in this volume.

8 The political history of the dissolution of the Union and the early development of the Danish and Swedish fiscal-military states: Gustafsson (2003).

9 The standard work on Swedish military and naval operations 1521-60 is Barkman (1937). Naval policy, warships and technology in the same period: Glete (1976-77).

10 The change from the Vasa dynasty to the Pfalz dynasty in 1654 was not important as the first member of the new dynasty, Karl X Gustav, was born in Sweden and raised as a member of the Vasa family.

11 Swedish sixteenth century sea officers are studied by MA Ingvar Sjöblom, Stockholm University.

12 A brief but important survey and analysis of the Swedish seventeenth century aristocracy is Ägren (1976).

13 The standard work on Swedish central naval administration is Wendt (1950).

14 The modern standard work about the Swedish Parliament is Metcalf (1987).

15 The text about the naval manning system is mainly based on Törnbom (1948) and Villstrand (1986).


17 A recent survey in English of Swedish policy in his reign is Upton (1998).

18 A seminal article about problems and possibilities with Sweden's resource base and the ambitious Swedish foreign policy is Odén (1967).

19 MA Dan Johansson, Stockholm University, is studying the shipbuilding policy of the Vasa monarchy up to the early seventeenth century.