The Dutch Wars of Independence and the Republic's Golden Age c.1570-c.1680

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Contents

Introduction. The Dutch Revolt, the Global Context, and the Military Revolution

> Of all the World they [the Dutch] are the people that thrive and grow rich by Warre, which is the Worlds ruine, and their support.[1]

The success of the Dutch in establishing their independence through their eighty years struggle with Spain was one of the most remarkable achievements of the sixteenth and seventeenth centuries. Other rebellions troubled mighty powers of this epoch, but none resulted in the establishment of an independent, republican state. Other early modern rebels seized power, but none managed to retain it in a federal, urban-based system of government. Other European wars interlinked with increasing globalization, but none promoted international capitalist structures so vigorously. And while virtually the whole of Europe was racked by conflicts, none yielded so much long-lasting profits to the belligerents as the Eighty Years' War did for the Dutch.

Most early modern wars brought physical destruction and financial ruin to the belligerents, irrespective of their being on the winning or losing side. The Dutch Wars of Independence however coincided with a true Golden Age. The economy boomed, immigrants arrived in flocks, numerous entrepreneurs started and extended their businesses, overseas trading posts and colonies were established, and the arts and sciences flourished. The paradox of such an exceptional profitable war did not escape the attention of contemporaries. The famous Amsterdam burgomaster Pieter Cornelisz. Hooft remarked: "Whereas it generally is the nature of war to ruin land and people, these countries have been noticeably improved thereby"[2]; the English author Owen Feltham noticed: "War which is the worlds ruin, and ravins upon the beauty of all, is to them [the Dutch] Prosperity and Ditation";[3] and the Council of State of the United Provinces observed:

> War is ruinous for other countries, but it did strengthen the United Provinces in its trade, riches, and power, it did improve its territories and cities, and those funds extracted from the common people seemed to return by other ways again, like the

[1] *Dutch Drawn to Life*, 42, anonymous London pamphlet of 1664.
[2] Quoted by Geyl, *Revolt*, 233.
[3] Feltham, *Brief character*, 84 [1652].

> waters which are transported by the rivers into the sea and which are returned by nature to its resources in a way unknown to us.[4]

On the side of the other belligerent, the Council of State of the Spanish Netherlands observed in the last decade of the sixteenth century:

> For several years now the Dutch have waged war on us outside their own territories; […] it is remarkable how they carry out warfare for such a long time at no costs, even enriching their country, exhausting the treasuries and condition of his Majesty and ruining all the provinces.[5]

Although the war was expensive for the northern Netherlands, this book argues that the economic benefits of the Dutch Wars of Independence depended upon an early example of successful commercialization of warfare, exemplified above all by the province of Holland. To secure long-lasting profits from war exploits, an independent territorial state was indispensable, a state geared towards the furthering of trade and industry, a state also providing sufficient protection against hostile incursions from outside and securing the property of the well-to-do burghers, irrespective of their ethnic backgrounds or religious beliefs. Such a state was only accommodated through strong military institutions which supported large numbers of soldiers. In the early modern period, the presence of troops usually brought distress and insecurity to the population, not least through attacks on civilians and army mutinies, that affected living circumstances and property rights in a negative spiral, yet Dutch armed forces proved an exception in this regard. That is the reason this book revives a crucial but largely forgotten aspect of Michael Roberts' Military Revolution Thesis: discipline. Dutch soldiers behaved only in a disciplined way because the army demonstrated a strong professionalizing ethos and because it was paid on time. Instead of causing destruction, much expenditure on warfare (soldiers' pay, navy establishments, fortifications, and interest payments on loans) could thus stimulate economic demand. The economic benefits of warfare in the northern Netherlands went far beyond the most obvious windfall of the war: colonial trade. Naturally, the Golden Age was not caused by the war. Yet war was endemic in early modern Europe, and the question is how, and to what degree, warfare was able to contribute to the Dutch economic growth. Which groups profited above all from the new economic opportunities that arose during the war? What happened with those effects the peace was signed in 1648? Above all this book hopes to reveal the 'unknown ways', in the words of the

[4] Dutch Council of State on 1637, quoted by Aitzema, *Historie of verhael*, II, 427. The term United Provinces, northern Netherlands and the Dutch Republic all signify more or less the territory north of the major rivers Meuse and Rhine; in this book 'Low Countries' is used for the southern and northern Netherlands together.
[5] Quoted by Swart, *Krijgsvolk*, 171-172.

Dutch Council of State quoted above, in which much of the voluminous military expenditure were pumped back into Dutch economy and society and thus furthered the Dutch Golden Age and, in its turn, the global expansion of Western Europe.

Interpretations of the Dutch Revolt

The interpretation of this book deviates from the standard stories of the Dutch Wars of Independence that stress either conservative or modernizing tendencies, establish either statist or revolutionary achievements, with either the bourgeoisie or the Calvinists in the vanguard, and accentuate either the civil war disturbances or the more regularized struggle to achieve national independence.[6] The angle of those works depends surprisingly often upon the specific time slot that is being studied. What started out as a scattered revolt in the 1560s against Spanish and local oligarchic rule for reasons such as greater tolerance in religion, reduced taxation, defense of local privileges, and furthered by class struggles instigated by increased economic distress, turned into a civil war by the early 1570s with a particular strong Calvinist minority. The conflict evolved subsequently into a more moderate movement with increasingly national traits a decade or so later, involving increasingly a number of larger provinces and resulting eventually into an independent federal state dominated by a powerful merchant class. Popular unrest destabilized the regime mainly in the later 1560s and early 1570s yet declined thereafter; resistance against Alva's tenth penny furthered the revolutionary cause but became a hollow theme as soon as the rebel regime imposed far higher taxes; while the role of Calvinist ideology in mobilizing opposition was undoubtedly strong, religious discontent faded, though it was to remain a permanent factor in the conflict.[7] In my view the Dutch Revolt was multifaceted; never did 'the' rebels constitute a homogeneous entity; some revolted for a religious cause, others for more freedom or more power; some for a restoration of their family's authority, while others just wanted to get rid of the Spanish troops. In fact, 'the' rebels harbored many a contradictory strategy.

[6] General overviews of the different interpretations include Van Nierop, 'Troon', 205-223; 't Hart, 'Dutch Revolt'; Noordegraaf, 'Economie en Opstand'. For works on the Dutch Revolt with reference to sociological theories, see Nadel, 'Logic', Ellemers, 'Revolt', and Schöffer, 'Dutch Revolt'. Marxist interpretations include Kuttner, *Hungerjahr*; Griffiths, 'Revolutionary Character'; Tilly, *European Revolutions*, 66; Brandon, Marxism and the Dutch miracle'; for an overview see Van der Linden, 'Marx und Engels' and Ingenthron, 'Einleitung', 16-104. On modernizing tendencies, see Zagorin, *Rebels and Rulers*, II, 80; on civil war aspects: Henk van Nierop, *Noorderkwartier*.

[7] The number of Calvinists was very small, though; Van Gelder, *Revolutionnaire Reformatie*, 22; Koenigsberger, 'Organization', 343; Woltjer, *Tussen vrijheidsstrijd*, 55; Boogman, 'Overgang'; Van Nierop, *Verraad* , 156-157. On the tenth penny: Grapperhaus, *Alva*.

The naming of the war varies too, with historians who study the earlier decades – stopping in 1609 or even before – preferring 'Dutch Revolt', while works that include also the last phases of the war tend to speak of 'the Eighty Years' War'. The title adopted for this study: 'The Dutch Wars of Independence', recognizes the distinctive stages of the conflict: urban revolt, provincial revolt, civil war, struggle for national independence, international power struggles and economic warfare, up to 1648. For a while the term Eighty Years' War was viewed as rather old fashioned, but it has been revived by a recent internationalist perspective, looking for example at the struggle from the viewpoint of the Spanish opponent, or discerning similarities and links with the French Wars of Religion and the Thirty Years' War, or stressing the global character of the fighting.[8] Indeed, the Eighty Years' War involved numerous states. Apart from the Low Countries and Spain, also England and France were heavily involved (sending subsidies, troops, governors and even a potential ruler); numerous German princes were personally involved, such as Frederic V, the former king of Bohemia and Elector Palatine; manpower was supplied by German and Italian territories; the links between the two Habsburg realms were all too obvious; and last but certainly not least the struggle extended to the Far East and other overseas areas.

This book will use the terms Dutch Revolt, Eighty Years' War, and the Dutch Wars of Independence interchangeably, dependent upon the scope of the argument. Now and then I will label the Dutch troops 'rebels', but only in the first decades; since the 1580s warfare attained a more regular character. The starting date of my investigation is around 1572, when the States Provincial of Holland assumed sovereign powers and raised troops of their own. Although peace was signed in 1648, the end date of my study is around 1680, after the Treaty of Nijmegen removed the direct military threat of France, which permits a full examination of the Franco-Dutch War of 1672-1678 when the independence of the northern Netherlands was again at risk. Ending thirty years after 1648 also allows me to investigate possible longer-lasting social and economic consequences of the Dutch Wars of Independence, next to possible negative effects after 1648, and to examine some of the impact and consequences of the first three Anglo-Dutch Wars as well.[9]

[8] Pollmann, 'Internationalisering'; on the weaknesses of the Catholic communities: Pollmann, 'Countering'; stressing the position of the opponent: Parker, *Dutch Revolt* and also De Cauwer, *Tranen*; pointing to the global character of the war: Thompson, *War and Society*, III:262.

[9] In addition, my choice of the time period is guided by the available studies that arose out of the NWO program 'War and Society during the Golden Age', with studies that partly extended to 1680; see also acknowledgements/ footnotes no. 31-32.

In studying the interrelation between war, economy and society this book profits enormously from the fact that military history has lost its isolation during the last decades. Scholars have increasingly investigated the links between state power and military elites, the lot of the common soldier, or the economic bases of army operations such as provisioning and taxation.[10] Throughout the early modern period powerful states experienced usually limited difficulties to *raise* troops; to *keep* those men under arms proved much more exacting as few rulers had the disposal over adequate and reliable mechanisms to provision and fund them.[11]

This book also links up with the old but still ongoing debate regarding the thesis of the Military Revolution. In my view this debate has remained strongly military and statist, with most participants focusing on the timing of tactical developments, the size of armies, and the consequences of new fortifications. What is largely overlooked or neglected is Michael Roberts' initial stress on the societal consequences of the late sixteenth century military developments.[12] This study will show that the Dutch military, fiscal, and political reforms of the 1570s-1590s *collectively* constituted an outstanding development in military history with far reaching economic and societal consequences for the northern Netherlands.

Above all the military reforms of Maurice of Nassau in the 1590s gave the Dutch Republic an impressive military staying power, which served their struggle against Spanish rule but entailed global ramifications as well. Scholars have emphasized that the consequences of the advanced military developments did not halt at the North Sea coast but pertained also to the 'Rise of the West', not least because of significant improvements in naval warfare.[13] The role of European military institutions in gaining world-wide dominance was not as straightforward as is assumed usually, however.[14] It was not so much the possession of firearms or the application of tactical measures that proved decisive for the colonizing Europeans in the end; much more important was the societal context of military power, their practical experience and logistics of training, organization, and supply, combined

[10] Duindam, 'Geschiedschrijving', 455-466; Ulrich, 'Militärgeschichte';Wilson, 'German History', 423-427; Vermeir, *In staat*; Rowlands, *Dynastic state*; Kroener and Pröve, *Krieg*; Kroener, 'Soldat'; Lynn, *Feeding Mars*; Nimwegen, *Subsistentie*; Bonney, *Economic Systems*.
[11] Parrott, 'Strategy', 245.
[12] Though Roberts saw this as primarily proceeding from a strengthened state. For a handy introduction regarding the debate: Rogers, 'Military Revolutions'; Black, *European warfare*, 3-11; see also Drake, *Problematics*, 260. Murray and Knox, 'Thinking about revolutions', 13.
[13] Parker, *Military revolution*, 4; Black, 'Military Revolution?', 104; Kyriazis, 'Seapower', 100. I focus on the military aspects and do not discuss other factors that furthered European dominance, such as the role of epidemic disdeases; see Wolf, *Europe*, Diamond, *Guns*, McNeill, *Plague*, Richards, *Unending frontier.*
[14] Cipolla, *Guns*, 138, 144-145; Thompson, 'Military Superiority Thesis'; Lorge, *War*, 172.

with the economic capacity to maintain their pressure. The majority of the non-European armies remained essentially aggregations of individual warriors that were able to fend off most hostile attacks up to the nineteenth century. But it was the enduring presence of the Europeans that constituted the problem. European fortresses could be captured by other Europeans, yet they rarely fell to native sieges.[15] In the course of decades and even centuries it was their long-lasting military presence that allowed Europeans to intervene and reap the fruits when indigenous powers suffered from (temporary) internal weaknesses or crises.

Scholars from the school of world systems regard global wars, that is, wars between contenders for power on the global scale, crucial for the redefinition of world economic relations. In this line of thought the Dutch Wars for Independence ranked among those rare global wars that overturned an existing pattern of relations; the Dutch Republic emerged victoriously and surpassed the former world leader (Spain, which also ruled Portugal) in a military and economic respect.[16] Remarkable for the United Provinces was their staying power, so important for profitable and stable national and international capitalist connections, despite and even most probably (as this book will show) also due to warfare. In Europe as well as in the Far East the Dutch wars seemed to have fed themselves. Even though this was not a unique phenomenon for Italian city-states like Genoa and Florence, it was so for territorial states. Scholars have observed in Venice some kind of 'military Keynesianism' through which military expenses boosted the income of the citizens, allowing for increased taxation, enabling in turn even higher spending, and thus advancing the power of the city-state again.[17] Although the profitable effects for warfare have been established for the Venetian case no such study exists as yet for the Dutch Republic.[18]

[15] Black, 'Military Revolution?', 108-110; Black, *European warfare*, 28, 237; Howard, 'Tools', 240; Chase, *Firearms*, 200; Parker, *Military revolution*, 120, 130-131, 136; Parker notes that the East Asian peoples only were subdued after 1800, when the industrial revolution produced extremely efficient killing machines.
[16] Modelski, 'Long Cycle', 214-235; Thompson, *On Global War*; Rasler and Thompson, *War and State Making*.
[17] Arrighi, *Long Twentieth Century*, 38; Lane, *Profits*. Lane, 'Family Partnerships', describes how the merchants did not need to worry about long-run overhead costs of a merchant fleet as they could rent the vessels from the Arsenal. The term keynesianism refers mainly to economic growth led by demand, not to the impact of warfare; Keynes himself was opposed to military expenditure which he regarded as inherently unproductive. See also Coulomb and Fontanel, 'Disarmamanent', 198.
[18] Several works exist that study part of the relationship between war and economy: Parker, *Spain*, 178 ff. and Brulez, 'Gewicht', provided a general overview; De Jong, *Staat*, established the profitable aspects of the arms trade and industry; Snapper, *Oorlogsinvloeden*, investigated the effect of war upon international trade. The findings of these studies are discussed in the following chapters.

But how could 'staying power' correlate with endemic warfare in Europe in view of the fact that wars usually carried disastrous consequences for the belligerents?[19] Few European states had developed the instruments to extract the necessary resources from society without hurting the economy; even fewer managed to have war gains counterbalance the war costs.[20] Sheer territorial size was important in this respect, as it furthered diversity and permitted imperial rulers to tap resources from various groups or regions, but for small states (like the Dutch Republic) no such options existed. For them not so much the tactics or the size of armies mattered, but rather how warfare stimulated the economy and in its turn, how economic growth supported warfare again. That cycle provided the real basis of Dutch endurance: the organization of their military institutions favored an exceptional degree of commercialized warfare, stimulated their trade and furthered new capitalist networks. In other words: the Dutch knew how to make money out of organized violence.[21]

In the bulk of Europe, warfare served above all the territorial aspirations of European rulers. Most monarchs attempted to strengthen their prestige and to enlarge their lands. This can be labeled as the 'logic' of territorial power, which is to be distinguished from the 'logic' of capital accumulation, the mechanism that enables capital owners to reap profits from their investments and to use those profits to gain new profits again.[22] The logic of territorial power did not stand always in the way of merchants and entrepreneurs; the extension of such state powers enabled among others more staple opportunities and improved protection along trade routes. The larger the empire the more secure the trade with communities further away; a larger territory permitted merchants to extend their long-distance networks. The rise of Antwerp, profiting from the widening trade networks of the Spanish Habsburg Empire, provides a convincing example of such benefits; also Amsterdam's trade accrued during the rule of Charles V thanks to the peace with other territories.[23] However, such advantages often faded during long-lasting wars since the accumulated private funds were then desperately needed to pay the soldiers. More often than not, no institutions existed to protect the

[19] On the endemic warfare: Jones, *European Miracle*; on its disastrous consequences: Vries, 'Governing Growth'; cf. also the thesis of imperial overstretch: Kennedy, *Rise*.
[20] Vries, 'Governing Growth', 82.
[21] McNeill, *Pursuit of Power*, 69 uses the term commercialization of organized warfare in relation to mercenaries. This book will show that true commercialization went beyond the – often short-term – profits of mercenaries.
[22] Arrighi, *Long Twentieth Century*, 33ff.; Harvey, *Spaces*, 105-107.
[23] Van der Wee, *Growth*, 340, 348. Among others Charles V also introduced legislation that improved contract negotiability which reduced the risks in trading.

merchants and entrepreneurs from burdensome taxation, defaulting repayments on government loans, injurious debasements of the currency, or outright exactions by territorial rulers. The decline of Antwerp because of recurrent state bankruptcies (the Spanish Habsburgs failed in 1557, 1575, 1596, 1607, 1627 and 1647) which ruined numerous banking houses, illustrates the dilemma for all early modern capitalists.[24]

During warfare capital funds needed a safe environment to ensure a steady development in the longer term. Merchants developed familial, ethnic or religious networks to reduce the risks but this was often not sufficient to counterbalance the demands of 'voracious' rulers.[25] Before the seventeenth century only a handful of self-governing cities, mainly in the north of Italy, managed to create dependable conditions for the 'logic' of capital accumulation for *all* the inhabitants on their territory. The Dutch Republic was the first *territorial* state that provided comparable services for capital owners.[26] In return for reasonable and predictable taxes the traders and entrepreneurs in Holland received adequate territorial protection with all its advantages *plus* unequalled financial services *plus* a colonial trade network. The Bank of Amsterdam created a stable unit of account (bank guilder) that provided among others good currency for trade, the navy protected the major trade routes, advanced litigation procedures regulated all sorts of smaller and larger transactions, and the Amsterdam Bourse provided information regarding the major international trade routes. These services lowered transaction costs and helped to safeguard the value of accumulated funds.[27] Only by the eighteenth century did several other European governments begin to recognize the advantages of taking care of both 'logics', not just the one that extended territorial power but also the other that served capital accumulation of domestic capitalists. Great Britain was the first to copy the Dutch successfully in this respect.[28]

Up to that time most European wars were predominantly capital destructive – with the remarkable exception for the Dutch in the Eighty Years' War. This undoubtedly facilitated the rise of the northern Netherlands as the core of the new capitalist world-system and strengthened the shift of economic gravity within Europe from the Mediterranean to the Atlantic coastal economies in the north-west.[29] The twin results of the Dutch Wars of

[24] Voth and Drehlichman, …., revised the general detrimental effect of these Spanish state bankruptcies for the Spanish bankers. Their analysis does not include the bankers in the southern Netherlands, however. Among others, such events caused the decline of the famous Fuggers' banking house.
[25] Greif, *Institutions*; Blockmans, 'Voracious Princes'.
[26] Arrighi, *Long Twentieth Century*, 135.
[27] Lesger, *Rise*; Neal, 'How it all Began', 120-122.
[28] Arrighi, *The long twentieth century*, 45-46; Wilson, *England's Apprenticeship*..
[29] Wallerstein, *Modern World System*, II:37; Braudel, *Civilisation*, III: chapter 3; Chase-Dunn, *Global Formation*, 166.

Independence: *national independence* and *efficient state formation* were thus crucial for the rapid economic maturation in the northern Netherlands.[30] Any continuation within the Habsburg imperial system would have forestalled that development by several decades or even centuries. The example of Antwerp demonstrated the injurious effects of warfare dominated by monarchical territorial ambitions: the state bankruptcies disrupted the confidence in capitalist property rights and numerous Antwerp-based entrepreneurs preferred to move their networks to Dutch cities like Amsterdam, Middelburg, and Rotterdam.

About this book

A recent synthesis on the history of the seventeenth-century Netherlands concluded that "The republic of 1650 was still reaping the fruits of a wartime economy," not least because "the interaction between military exploits and economic development contributed to the favorable outcome of war."[31] To gain insights into the how of that interaction this book divides its argument in eight chapters. Chapter 1 provides a general overview of the most important military and political developments between c. 1570 and c. 1680, and analyses the different strategies of the belligerents; it offers the historical context of the subsequent chapters. Chapter 2 follows in explaining how the Dutch managed to establish a comparatively professionalized force at an early stage, a *conditio sine qua non* for all further developments. Above all the reorganization of the military by Orange deserves substantial credit. The implications of the Maurician reforms in tactics are dealt with in Chapter 3; most importantly the formation of military discipline is regarded as an outstanding phenomenon with far-reaching consequences for society and economy, not least because that discipline permitted the Dutch to enjoy their economic earnings within a situation of relative stability at home. How the reforms affected the urban populace with their numerous fortifications and garrisons is discussed in Chapter 4. Here the first clear advantageous signs of warfare are discerned, since a substantial part of the war expenditure was pumped back into the towns again. However warfare also had its dark sides in the Netherlands, above all for the countryside, which I explore in Chapter 5; a partial dislocation of wealth from the peasantry to the towns was the result. This points to a crucial finding of this book: the war seemed to have been

[30] 'National' is of course an anachronism; yet the idea connotes territorial sovereignty, and this was the case for the Dutch Republic. 'State' is likewise a problematic term, yet the following chapters will show that the bureaucracy of the Provincial States of Holland and the government by the Dutch States General were quite efficient and state-like. See also 't Hart, *Making of a bourgeois state*.
[31] Frijhoff and Spies, 'Hard-Won Unity', 18. Unfortunately, the authors do not expand further into the background of that interaction.

particularly favorable for the trading communities in the province of Holland, but was less positive for the inland provinces and sometimes quite detrimental for the agrarian population. Chapter 6 discusses the costs and beneficial effects of maritime warfare. While the costs turn out much lower than is assumed in standard historiography, the degree of navy protection along trade routes is shown to have been impressive, from which above all local merchant communities profited. The new power at sea supported colonial companies that explored new ways of capital accumulation. Chapter 7, then, establishes the substantial advantages in Dutch war finance, with a tax and loan flexibility unequalled in early modern Europe; its redistributive effects further stimulated economic demand, and above all in Holland. The last Chapter discusses the crucial links between warfare and the economy in the northern Netherlands, notably the enormous profitability of the Republic's arms trade and how the economic opportunities accrued to Holland to the detriment of other provinces. Throughout the book my aim is to put the military experiences and repercussions in a comparative perspective. The Conclusion will discuss the interrelation of war and economy in the context of early modern Europe and stresses the specific conditions that permitted the rise of the Dutch Golden Age during the Dutch Wars of Independence.

My research has profited enormously from the recent studies that emanated from the NWO-research program 'War and Society during the Golden Age' of the University of Amsterdam (2001-2006); this book also aims to bring their findings into a new synthesis.[32] Erik Swart's book on the professionalization of the Dutch army in its first decades proved of enormous help for Chapters 2 and 3; Peter de Cauwer's study on the Den Bosch Siege of 1629 yielded significant insights for Chapters 3 and 4; Griet Vermeesch' work on two garrison towns was indispensable for the writing of Chapters 4 and 7; Olaf van Nimwegen's study on the States' army provided a wonderful context for Chapters 2 and 3; and last but certainly not least Leo Adriaenssen's book on the Brabant experiences of war furnished excellent material for Chapters 5 and 8. In addition I profited from other recent work of Dutch scholars, above all Michiel de Jong's book on the Dutch arms trade and Paul Holthuis' study on Deventer during the war; the results of the project *Gewestelijke Financiën* under the leadership of Wantje Fritschy allowed for new financial reconstructions; and also Ronald de Graaf's general study on the Eighty Years' War yielded new knowledge regarding the local effects of

[32] Dossier 360-51-000; participants: Henk van Nierop, Herman Amersfoort, Olaf van Nimwegen, Erik Swart, Peter de Cauwer, Griet Vermeesch, and the author of this book; Leo Adriaenssen also wrote a PhD thesis in connection with this program.

war.[33] The still ongoing research by Pepijn Brandon, Thomas Goossens and Jeff-Fynn Paul from the VNC-project 'Networks of State and Capital' gave further insights that permitted a strengthening of the argument of this book.[34] I owe special thanks to Hamish Scott for suggesting this research in the first place. Columbia University offered an extremely hospitable environment that stimulated me to write the book.[35] I am thankful to all these academic networks for their inspiration and motivation.

[33] Swart, *Krijgsvolk*, De Cauwer, *Tranen*, Vermeesch, *Oorlog*, Van Nimwegen, *Deser landen crijghsvolck*, Adriaenssen, *Staatvormend geweld*, De Jong, *Staat*, Holthuis, *Frontierstad*, De Graaf, *Oorlog*; I also want to thank the participants of the conference in Rijswijk (2005) on War and the Golden Age: The Netherlands in comparative perspective, c. 1550-1700.

[34] 'Netwerken van Staat en Kapitaal: Oorlog, Militaire Instituties en Ondernemers in de Nederlanden (ca. 1670-ca. 1795)', VNC Dossier 205-53-234.

[35] With thanks to the subsidy from NWO, Dossier 365-51-016.

Chapter 4 Garrisons and Civic Communities: Strengthening the Local Bonds

> [The Eighty Years' War] was a war over fortresses whose garrisons, on the Dutch side at least, paid cash for what they took from the surrounding population and thus often had a stimulating rather than retarding effect on the local economy.[1]

The fortifications of the *trace italienne* strengthened undoubtedly the defense of the smaller states of Europe; they raised the chances of survival for the Dutch Republic too.[2] But the *trace italienne* implied large number of soldiers that had to remain in garrison towns. In most of Europe, the close intermingling of garrison soldiers and citizens resulted recurrently in antagonisms and outright violent behavior. The violence emanated from both sides. For example, in the 1630s French soldiers were reported to have bullied their hosts by smashing their windows, demanding more services and goods. In retort townspeople rose against the garrison; in one case, even the garrison's captain was killed by the burghers. Similar clashes took place in Habsburg Spain and elsewhere.[3]

All over Europe civilians tried to avoid the billeting of soldiers as much as possible. In seventeenth century England the billeting of soldiers was regarded as an act of tyranny. During the Thirty Years' War no large German city seems to have accepted the billeting of soldiers; this burden was shifted to the smaller and less powerful communities. In France, entire provinces (such as Auvergne and Burgundy) or towns (such as Grenoble and Boulogne) had managed to exempt themselves from the duty to house soldiers. The French Minister Mazarin remarked: "Having soldiers billeted for three days is more onerous for a man than the *taille*" and in the 1660s Colbert noted: "The four generalities of Paris, Amiens, Châlons, and Soissons, have suffered more from quartering over the last six months than in the last six years of war." Michael Braddick noted that in Warwickshire the burden of free quarter and plunder amounted to half the level of taxation during the English Civil War. Because of such burdens, almost everywhere in Europe towns begged for a reduction of their garrisons and if possible,

[1] Anderson, *War*, 73.
[2] See also Arnold, 'Fortifications', 222.
[3] Parrott, *Richelieu's Army*, 432, 524-525; White, 'Experience', 36-37.

they tried to get rid of them altogether. Because Antwerp refused admission of Parma's troops, they were forced to stay on the royal and church domains during the winter of 1582-1583. Authorities imposed new taxes in order to recompense the hosts, yet the schemes failed repeatedly to provide sufficient funds and the burden of both accommodating and paying the soldiers fell recurrently upon the same (middle and lower) classes. Since the latter were unwilling to pay for a tax whilst they also had to house the soldiers, the military coercion that accompanied the collection of these taxes was at times even more costly than the proceeds.[4]

Since urban authorities eschewed all garrison soldiers, they armed their own citizens for protection.[5] But by the end of the sixteenth century urban militias could not stand up to the more professionalized armies any more. In addition, the establishment of the central state did not always favor militia forces because of the fear of insurrections. In France the *milices bourgeoises* were looked upon with great suspicion; even major fortifications were not entrusted to towns either, and numerous French fortifications were destroyed in the seventeenth century.[6] Such policies and antagonisms obviously undermined the strength of the defense and undoubtedly affected the political position of the French urban communities.

In the United Provinces some forty garrisons were maintained, primarily along the frontiers but also inland, with an additional thirty or so in 'conquered areas' such as Brabant and in friendly adjoining territories such as East Frisia. The number of troops in the garrisons was substantial: usually between ten and twenty-five per cent of the urban population, to which the urban militias should be added.[7] It was a remarkable and outstanding fact of the Dutch Republic that these soldiers stood on peaceful terms with the inhabitants. The French commander Condé complained to Mazarin in 1648 on the strength of the alliance between the garrison and the citizens in the Low Countries: "The

[4] Swart, *Krijgsvolk*, 177-178; Lynn, *Giant*, 162-168, 193 (quote Colbert); Braddick, *God's Fury*, 396-397; Parrott, *Richelieu's Army*, 271-273, 511; Rooms, 'Bezoldiging', 544; Kroener, 'Soldat', 111; Schennach, 'Soldat', 61; Göse, '*Landstände'*, 208; Fletcher, *County Community*, 198; Gaunt, 'One of the Goodliest and Strongest Places', 193, 197; Vermeesch, *Oorlog*, 107; Tallet, *War and Society*, 149 (quote Mazarin); Childs, *Armies and warfare*, 175 ff.

[5] Gunn, Grummit, and Cools, *War, State, and Society*, 75; Corvisier, *Armies*, 29-31.

[6] Lynn, *Giant*, 372-373. Only later in the seventeenth century did the French state revive urban militias again, in a centralized setting.

[7] Zwitzer, 'Soldaat', 181. In the southern Netherlands the Spanish maintained a comparable number of garrisons, see the lists in Rooms, *Organisatie*, 374-417.

enemy fortresses are defended by the townspeople as well as the garrisons, whereas in our fortresses the citizens are our mortal enemies."[8] Strict discipline and drill (see Chapter 3) constituted significant conditions, but also Orange's reforms in the method of weekly pay, advanced through loans by the towns (see Chapter 2), was crucial for this development. Article Six of the Union of Utrecht had transmitted the Holland pay arrangement for the whole Republic: "That the Frontier Towns shall be bound to receive or dismiss all Garrisons by the command of the *States*, as likewise to pay them their pay out of the publick Money".[9] As a result, by the later 1570s the hostilities between citizens and soldiers had faded out in Holland, and with some time lag also in the other provinces of the Republic (after the introduction of regular provincial contributions in the 1590s, see Chapter 7).

The peaceful coexistence between military and civilians permitted towns to enjoy the possible positive side-effects of keeping soldiers. Urban authorities even recurrently asked for an extension of the troops. To explain the outstanding situation of the Dutch garrisons, this chapter uses recent evidence, predominantly concerning Gorinchem (with around 6,000 inhabitants, located in Holland), Deventer (in size comparable to Gorinchem, located in Overijssel), and Doesburg (around 2,000 inhabitants, in Gelderland). Data regarding garrisons in the far north east (Groningen) are added in order to present an overall view of garrison experiences in the United Provinces.

The war increased the participation of the burghers in the civic militias. Although the ongoing professionalization in the military rendered armies more effective than militias, their role was by no means insignificant. The garrisons exerted a positive economic demand, and a further positive side-effect emanated from the housing of soldiers, as will be shown below. In addition, the building of fortifications entailed a significant expenditure on part of the central state institutions, which served local contractors and laborers extremely well. The chapter also evaluates the common notion that earthen works were very cheap. In all, the presence of the garrisons strengthened the urban communities again and shored up the typical urban political culture of Dutch society. After the Peace of Westphalia, however, some of the positive dynamics between

[8] Quoted by Duffy, *Siege warfare*, 130.
[9] Aglionby, *Present state*, 64. See also Tracy, 'Holland's New Fiscal Regime', 54.

war expenditure and the economy of the garrison communities disappeared, as will be shown below. Yet the specific advantages of the Dutch garrisons did not come overnight. The chapter sketches first some of the hardships connected to the housing of soldiers in the early decades of the Revolt.

The Difficult Start in the Early Decades of the Revolt

To a significant extent the Dutch Revolt was fueled by hatred among the population against the misbehaving Spanish soldiers.[10] But in the early decades of the Revolt Dutch soldiers were not that much different. All underpaid soldiers were likely to cause troubles in the towns or to commit raids in the neighboring countryside, often out of sheer need of survival.

Holland received its share of such troubles. In February 1574 Captain Hendrik van Broekhuysen was wounded during a citizen outrage in Hoorn. In November of that same year the misconduct of the garrison triggered an upheaval of the Medemblik burghers.[11] In view of such difficulties the States-Provincial of Holland decided to condone the presence of garrisons in Holland towns only on the condition that in each town a sergeant-major (*wachtmeester*) was appointed, who was to supervise the troops' behavior (see also Chapter 2). Two years later, in 1576, the governments of Holland and Zeeland stipulated further that soldiers were never to interfere with the political or juridical matters of the town.[12] The Union of Utrecht of 1579 specified in addition:

> … that both Captains, and Souldiers, shall besides the general *Oath*, make particular oath also to the Town, or Citie, and Province, where the Garrisons is to bee layd; and that this same shall bee inserted in their Articles; and that likewise there shall bee such order taken, and such discipline kept among the Souldiers, that the Burghers and inhabitants of both Town and Countrie, whether Church or Lay-men shall not bee burthened beyond reason, nor suffer any molestation.[13]

[10] Rooze-Stouthamer, *Opmaat*, 97-99.
[11] Swart, *Krijgsvolk*, 176.
[12] Swart, *Krijgsvolk*, 177.
[13] Aitzema, *Notable Revolutions*, 13.

This oath of allegiance did thus not only pertain the paymaster of the troops, as in most of Europe, but also the local authorities. In the later 1570s the relationship between garrisons and citizens improved in Holland and Zeeland, stimulated by the reforms of Orange. Occasional money shortages, however, did not stay out; in the 1580s lack of funds still resulted in hostilities in the garrisons. In 1588 the soldiers in the Woudrichem garrison complained that poor payment and hunger had made beggars of them. The nearby garrison at Heusden stood on the brink of mutiny because of the same reasons.[14] Yet by and all, the difficulties were relatively minor in Holland.

Inland the urban population suffered longer from unruly garrisons, since not all provinces were able to introduce the system of regular pay as early as Holland. In Zutphen (Gelderland) the soldiers of the States' company of Captain Van Brienen caused so much distress that the town government had the burghers armed in secret. On 11 February 1583 this armed force evicted the majority of the soldiers; only seventy soldiers remained behind. When the Spanish commander Taxis learned about the weakened condition of the town, he had the town attacked and plundered in September 1583.[15]

A peculiar difficulty of the new garrisons entailed religious strife. In Doesburg (Gelderland) the arrival of (mainly Calvinist) States' soldiers caused a major transformation in the religious structure of the predominant Catholic society. Despite protests of the population, Calvinists were assigned two churches in 1578-1579. In the fall of 1580 the population nearly doubled with the stationing of 1,100 English soldiers, to which the army 'train'– consisting of wives, children, servants, prostitutes, and all kinds of traders – should be added. Army trains caused trouble everywhere, but always in particular in the smaller localities. The Doesburg citizens had little chance to protest since the position of *richter* (bailiff) was held by a military, Captain Balthasar van Rossum. His soldiers extorted the necessary funds from the population.[16]

The burden to pay Doesburg's garrison thus fell upon the shoulders of the local citizens and farmers; they also had to house them without compensation. In the early 1580s again underpaid and mutinous troops stayed in the town. In 1585, provoked by the ill-disciplined garrison and dissatisfied with the anti-Catholic measures over the last

[14] Vermeesch, *Oorlog*, 47-48.
[15] The town remained in the hands of the Spanish until 1591. Vermeesch, *Oorlog*, 69.
[16] Vermeesch, *Oorlog*, 65-66.

couple of years, a number of town magistrates, burghers, and farmers conspired with the Spanish. The States' soldiers were chased out and replaced directly by a garrison of the Army of Flanders. Leicester captured Doesburg again with his States' army however; in retaliation he forced the new urban government to implement strictly the regulations that forbade all public Catholic services. The problems remained: the new garrison was paid so poorly that it remained on the brink of mutiny, and complaints about ghastly soldiers' behavior continued up to 1590. In contrast to Holland, not each town received a *wachtmeester* to watch over discipline. The few district *wachtmeesters* that were appointed in the eastern Netherlands later in the 1580s could do little to restrain the undisciplined troops.[17]

Militia and the Urban Community

Yet in case provincial tax structures eased the levy of the funds for soldiers' pay, a garrison did not need to cause such hardships for the populace. In the 1570s already, when local funds fell short in Holland, non-frontier towns sent part of their tax yields to garrison towns. Dordrecht, Rotterdam and Delft supported in this way the Gorinchem garrison.[18] Urban governments also took care to establish cordial relations with the military. Town accounts reveal considerable expenses for socializing meetings of the officers of the garrison with representatives of the urban government and the local militia. In Gorinchem Captain Robinson was particularly loved by the urban community; when he died in 1573 the authorities memorized their excellent relationship with this officer. To a certain degree urban governments could also negotiate the number and composition of soldiers in the garrison. For example, in 1586 the Gorinchem town council asked the States-Provincial of Holland to replace the two companies of English troops in their garrison by companies with "good [= more reliable] Dutch soldiers".[19]

[17] Vermeesch, *Oorlog*, 67-76.
[18] Vermeesch, *Oorlog*, 56.
[19] Vermeesch, *Oorlog*, 47, 52, 54.

The Dutch Wars of Independence caused further a revival of the urban militia. Former militia institutions were overhauled and replaced.[20] The Gorinchem government divided the town in eight parts, each responsible for the levy of a militia company of two hundred. These men received arms and were trained, and pledged an oath of allegiance to the town too. Their main task was to stand guard during the night in order to relieve the duties of the garrison. Each night about two hundred burghers fulfilled the sentry duty. This was a substantial obligation: every militiaman had sentry duty once a week, not only on the Gorinchem walls, but also in the nearby strongholds and villages. During critical moments the guards were doubled.[21]

Sometimes, the task of the militia was supported by town soldiers hired by the urban government or the province.[22] As noted above, armed citizens could not always be trusted. During the siege of Venlo in 1637 for example, after the Spanish artillery had set the town in fire, the citizens – armed to support the defense – plotted together. As soon as the soldiers were in the outworks, they captured the governor, occupied the marketplace, the magazine and the gate, and shut the soldiers out. Venlo capitulated the next day.[23] Neither were all citizens willing to serve in the militia. In Doesburg, where the sudden changes in religious and political conditions had caused great difficulties in the 1580s, the authorities had to impose fines for failing to appear at sentry duty. Peasants from the surrounding area were forced to fill the gaps in standing guard.[24] But in the main the Dutch Wars of Independence intensified the duties of the burghers and thus strengthened the notion of local citizenship.

The position of citizenship was put at hazard in case one had fled the town because of war threats. Citizens were expected to carry the burden of burgher obligations with the others, especially during stressful periods. Splinter Cornelisz van Voorn, clerk of the Gorinchem town council, had taken refuge to Den Bosch because of the troubles.

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[20] Knevel, *Burgers*, 92-98; Van Nierop, *Verraad*, 73; on the militia in the southern Netherlands: Despretz, 'Stadsversterkingen', 14 ff.
[21] Vermeesch, *Oorlog*, 97; see also Rooze-Stouthamer, *Opmaat*, 94, 157, 185 for Zeeland militias.
[22] Town soldiers hired by the province were called *waardgelders*. Their pay was somewhat higher as compared to the ordinary soldier, 7 stuivers a day instead of 5, because they were discontinued in service during the winter when the field army stayed in the garrisons again. Van Nimwegen, *Deser landen crijghsvolck* , 46-47; Wagenaar, 'De waardgelders', 211-230.
[23] Van Nimwegen, *Deser landen crijghsvolck* , 123.
[24] Vermeesch, *Oorlog* 50, 75, 98.

Upon return he found his house seized by the urban government to accommodate soldiers. His request to have his former property restored was declined with the argument that he had failed to perform his burgher duties for several years. Similar policies were noted in Deventer. Following the capitulation to the States' army in 1591, the urban authorities ordered those burghers who had fled to return within one month, under threat of losing their citizenship.[25]

Militias served above all their own town and district, but occasionally they were also put into action farther away. Service in other garrison towns was quite common. For example in 1602 hundred Gorinchem militiamen were sent to nearby Woudrichem; Woudrichem's garrison soldiers could then move on to Breda, from whence again Breda's garrison soldiers departed to the field army. During the invasion of the Veluwe in 1629, five thousand Holland militiamen left their home towns to support the defense in the frontier garrisons: 1000 from Amsterdam, 500 from Leiden and Haarlem each, 400 from Rotterdam, 300 from Delft, and so on, up to 75 from the small town of Schoonhoven. For such duties that were performed outside their own town the militias received compensations.[26]

Occasionally, militiamen also served in field armies. In 1578 two hundred Doesburg militiamen departed for Deventer to assist the defense on the redoubts. The next year nearby Doetinchem was captured by the Spanish commander Maarten Schenk, but an army composed of militias from Deventer, Doesburg, and Zutphen stormed the town successfully, even before professional troops had arrived. The toll was heavy though: a great number of the militiamen had died. Because of their poor training, militiamen were quite vulnerable, and the effectiveness of militias diminished with the increased professionalism among the regular soldiery.[27] Even then, in 1637 during the siege of Breda Frederick Henry found some employment for militias, but that was in all probability the last occasion in which a Dutch militia partook in a major military exploit outside town walls.[28]

[25] Vermeesch, *Oorlog*, 48; Holthuis, *Frontierstad*, 39.
[26] Vermeesch, *Oorlog*, 67, 74, 97-98. The compensation stood at twelve stuivers a day.
[27] Vermeesch, *Oorlog*, 67.
[28] Knevel, *Burgers*, 255.

Commercial Aspects of Garrisons

That garrisons offered in principle significant opportunities for local business was a well known fact. In the 1550s, for example, an Antwerp company had supplied eleven garrisons for the staggering amount of 250,000 guilders.[29] Also during the Dutch Wars of Independence a significant portion of the tax funds were spent to provide for garrison soldiers, for their pay and housing, and for the fortifications. Table 4.1 summarizes the annual expenses of the Dutch Republic in the early 1640s.

Table 4.1 Reconstructed annual budget of expenses of the Dutch Republic (c. 1641), in percentages

Army, of which:		51.5
cavalry, pay	*8.5*	
infantry, pay	*32.8*	
salary higher officers	*4.2*	
housing	*3.1*	
transportation	*0.8*	
magazines/ammunition	*2.2*	
Navy		26.0
Pensions		3.3
Fortifications		8.7
Administration		5.6
Debt service		4.4
Miscellaneous		0.5
total (23,7 million guilders)		100.0

Source: 't Hart, *In Quest*, 43, 51; 't Hart, *Making*, 62.

The other expenditure items will receive treatment elsewhere; what is of interest in this chapter are the enormous amounts that ended up in the pockets of garrison soldiers, their

[29] Soly, 'Antwerpse Compagnie', 358; see also Gunn, Grummit, and Cools, *War, State, and Society*, 81; Kroll, *Stadtgesellschaft*, 476; Corvisier, *Armies*, 81.

suppliers, their hosts, and the contractors and laborers at the fortifications; thus in the table the sums for the pay of cavalry and infantry, their housing, and the fortifications.

In fact the Dutch army acted as the largest employer of the time. Over 41 per cent of the Republic's budget was spent on payment of the infantry and cavalry ranks, all of whom stayed in garrison towns during winter, while in summer the majority of the troops remained in the towns (the field army constituted usually the smaller part of the armed forces). The ordinary infantry soldier received some 11.5 to 12 guilders per month of 42 days. This pay was low, compared to other occupations that demanded a certain minimum of skill and schooling, yet the pay was regular and continued during wintertime too. Soldiers in other armies were often paid higher sums, yet in contrast to Dutch soldiers they rarely received what was promised. Dutch soldiers could earn further significant extra's in digging, fortification repairs, convoy duties, and assisting in tax collections.[30]

Not all Dutch soldiers received the same pay; the elderly and more experienced soldiers usually received higher amounts. The elite pike men obtained up to six guilders extra per month, the best musketeers up to one guilder extra. The average pay for a cavalry man was around twice as high as for an infantry soldier, since he had to provide for a horse too. On average, captains withheld 1.5 to 2 guilders per soldier per month to provide for cloth and weaponry.[31]

As noted before, soldiers did not obtain these funds once a month, but in weekly installments, which amounted usually to a quarter guilder per day. The advantage of weekly pay arrangements can hardly be overestimated. Monthly payments had often been gambled away; in contrast the smaller weekly installments stimulated the peaceful coexistence with civilians. An English soldier thus reported in 1606 that they lived "in love" with the local population in the Flushing garrison.[32]

Thanks to the regularity of soldiers' spending, local artisans enjoyed a major additional demand because of the garrison. This demand was considerable because of the regulation that the States' soldiers were not permitted to engage in a civilian trade themselves. This stood in contrast to much of Europe where soldiers were often permitted

[30] Adriaenssen, *Staatsvormend geweld*, 164-168.
[31] Van Nimwegen, *Deser landen crijghsvolck*, 59, 62.
[32] De Graaf, *Oorlog*, 396.

to pursue their own trade next to their military occupation.[33] This prohibition in the Netherlands was yet another sign of a high degree of professionalization of the military, and had the effect that even the establishment of a small garrison entailed continuous, higher demand for local produce. After the construction of the Bourtange fortification in the far north-east for example, the village of nearby Vlagtwedde witnessed a major extension in the number of artisans and shopkeepers.[34] In the much larger garrison town of Deventer the business of bakers, tailors, smiths, and arms flourished; the number of tailors among the new immigrants increased and the textile industry revived thanks to the need of soldiers' clothing.[35] In Gorinchem the beer industry experienced a period of prosperity since the extension of the garrison too. The town's trade in general even expanded to such an extent that the market became too small for the number of stalls; the fish bridge collapsed under the weight of market wares.[36] In some cases the garrison exerted a significant stimulus for new goods; for example Maastricht's garrison turned the tobacco trade into a mass product.[37]

Dutch garrison regulations differed also with garrisons elsewhere in that the soldiers were not exempted from taxation. The Union of Utrecht of 1579 had stipulated that

> […] the said Garrisons shall bee no more privileged or exemted from paying of Excise or impost, then the Burghers and inhabitants are of the place, where they com to lie.[38]

The troops thus paid taxes on commodities, just like all citizens, which stood in contrast with many other countries where the military were exempted of such duties. For example, in the Spanish Netherlands the soldiers were free from excises on wine and beer and brandy. Some soldiers sold those items to the burghers at a profit, to the detriment of the urban government.[39] The effect of soldiers' presence in the Netherlands was quite different, which was also noted by the London pamphlet of 1664, *The Dutch Drawn to Life*:

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[33] Thompson, 'Money', 289; Kroener, 'Modern State', 215-216.
[34] Post and Van Oorschot, *De middelen*, 108, 114, 127.
[35] Holthuis, *Frontierstad*, 164-166, 172-176.
[36] Vermeesch, *Oorlog*, 164.
[37] Steegen *Kleinhandel*, 264, 290.
[38] Aitzema, *Notable Revolutions*, 13.
[39] Rooms, 'Bezoldiging', 542-543; Rooms, *Organisatie*, 253-254.

> By their Excise, […] the more mony they [the Dutch] pay, the more they receive again, in that insensible but profitable way: what is Exhaled up in Clouds, falls back again in Showers: what the souldier receives in pay, he payes in Drink […] for every day he payeth his sutler, and he the common purse.[40]

The considerable proceeds of the beer excises in garrison towns thus supported the local and the provincial government again because of the increase in their revenues. Small wonder, then, that urban authorities frequently requested for an enlargement of their garrison. A larger garrison implied a higher budget; a higher budget brought about a higher prestige to the local government. Thus next to the economic motive in those requests for enlargements, also the fact that the political and administrative elbow-room of the local authorities increased must be taken into account.[41] To those reasons another advantage could be added further: the profitability in housing soldiers.

Housing the Soldiers

Housing the troops in the garrisons demanded another 3 per cent of the budget of the United Provinces (see table 4.1 above). This might not look that impressive, yet the sums constituted a net transfer of the central authorities towards those who provided actually lodgings for the soldiers, which was a significant disparity with the practice of accommodating soldiers elsewhere in Europe.

Under the Habsburgs, like in most of early modern Europe, inhabitants of garrison towns had been required to provide free quarter to soldiers: one room with a bed for two soldiers or for a soldier with his wife, heating, light, and a place to cook with salt, vinegar and oil.[42] Together this was called the *servitium*, in Dutch *servies*. For these services soldiers had to compensate their hosts from their pay, but since their pay was often not coming about the arrangements resulted recurrently in disputes. Different interpretations as to what constituted the actual *servitium* caused much discontent: some soldiers expected also candles and tableware, for example. Such problems constituted a significant reason why urban authorities shied away from lodging troops.

[40] *Dutch Drawn to Life*, 50-51.
[41] De Graaf, *Oorlog*, 561; Holthuis, *Frontierstad*,, 45; Vermeesch, *Oorlog*, 114.
[42] Rooms, 'Bezoldiging', 537 ff.; Groenveld, *Van vyanden*, 15.

In the first years of the Revolt the quartering of troops in Holland and Zeeland did not deviate from this Habsburg tradition. Quartermasters (*foeriers* among the Landsknecht companies) billeted the soldiers upon the households; no-one could refuse. The hosts received sometimes compensation, sometimes not, depending upon what was left of soldiers' pay.[43] A significant improvement were Orange's reforms in the pay structure, and his efforts to trim down the army train by permitting only lawful wives and by reducing the numbers of servants or boys to three per company.[44]

But a major leap forward was the direct connection of local army's expenses to the local proceeds of the improved provincial taxes. From June 1577 onwards also the *serviesgeld*, the financial compensation for the *servies*, was paid out of local tax funds (and deducted then again from the sums the town had to advance to the province). A crucial innovation was that the households received the funds directly from the urban authorities, not indirectly via the soldiers. This reduced the quibbling between soldiers and civilians substantially.[45] Since January 1578 the compensations ran as presented in table 4.2.

Table 4.2 Compensation for lodgings of military in guilders, per month of 32 days, in guilders

	Infantry	*Cavalry*
Captain	6.0	6.8
Lieutenant	4.0	4.8
Ensign/ Cornet	5.0	5.8
Sergeant	1.7	
Corporal	1.5	2.0
Soldier/ Horseman	1.2	1.8

Source: Vermeesch, *Oorlog*, 109

Towns appointed *serviesmeesters* to deal with the transfer of the substantial sums to the households. The Union of Utrecht of 1579 extended these measures for the whole Dutch army:

[43] Rooze-Stouthamer, *Opmaat*, 86, 193.
[44] Swart, *Krijgsvolk*, 182, 184. Holthuis, *Frontierstad*, 102, estimates the army train at some forty per cent of the troop strength. On average one in four soldiers was married, De Graaf, *Oorlog*, 201.
[45] Tracy, *Founding*, 131, 172; Vermeesch, *Oorlog*, 53-56.

> Order also to bee given, that the Generalitie shall pay the Burghers and inhabitants for the lodgings, in the same manner, as hath hitherto been practised in Holland.[46]

Upon advice of Orange additional regulations followed in 1580. In return for *serviesgeld* all hosts had to provide a bed with bedding only. No heating, light, oil, vinegar, salt, lard, oats, hay, straw, pots, or pans were included in the *servies* any more. Henceforth many soldiers had their meals at inns, and did not burden their hosts in the kitchen or with additional demands any more. Ordinary soldiers slept to a maximum of six in a room with three beds; officers were entitled to an own room with a bed; captains were to obtain a room with two beds and a kitchen. In case the army had left for campaign, soldiers' wives and children remaining behind were to receive half of the standard installments.[47]

In the course of the 1580s the detrimental aspects thus associated with the housing of soldiers disappeared in Holland and Zeeland. The system of providing compensations for soldiers' lodgings by the military or local authorities proved an enormous improvement upon the Habsburg past. Garrison towns of the other provinces had to wait until 1595, when expenses on accommodation became a standard item on the States General's budget.

In contrast, the Spanish Netherlands lagged significantly behind in finding solutions to accommodate soldiers. Some improvement was noted with the arrival of Archduke Albert in 1598. His advisors had warned him "that if he wished to master and overcome his enemies he should set his affections more upon the people than upon the soldiers." The obligation to house soldiers was then partly changed into a money payment from which compensations were paid to the soldiers, who could then pay their hosts. For those citizens who could not pay the duty, no free choice existed: they were to house the soldiers. These hosts were promised compensation, but the real costs were always higher than the reimbursements, and the compensations came in late, if at all. The regulation was hampered further by the great degree of tax exemption, and nobles, church officials, and urban councilors did not contribute anything. Thus the presence of soldiers in the

[46] Aitzema, *Notable Revolutions*, 13.
[47] Swart, *Krijgsvolk*, 178-179; Vermeesch, *Oorlog*, 108; Van Nimwegen, *Deser landen crijghsvolck* , 63.

frontier garrisons of the southern Netherlands remained a source of nuisance and complaints throughout the war.[48]

The problematic situation of soldiers' housing in the Spanish Netherlands evoked solutions that gradually came about in other countries as well, but not in the northern Netherlands: the building of barracks. Barracks were constructed among others in Den Bosch (1610), Dunkirk (1611), Lier (1613), Maastricht (1616), and Breda (1630). This solution to relieve the local population of the burden of housing soldiers, however, was not favored among the soldiers themselves. They preferred to stay at private houses, which was more comfortable and less endangered by the spread of diseases.[49]

Contrary to the usual European practice also, Dutch soldiers were not billeted upon the households. Maurice stipulated in 1595 that burghers could never be forced to house soldiers. This fact stimulated the soldier's discipline and increased the negotiation power on part of the would-be hosts. The hosts had the right to decide upon how many soldiers they wished to house, or perhaps none at all, and could pick those they were prepared to provide quarter and leave those out they did not like. The French Captain Puységur described the quartering of soldiers in Gorinchem (1636):

> One does not give any billets for housing soldiers, the men and women choose them on the market-place: some pick two, others four, but not all from the same company […]. Usually, only the worst looking and worst clothed remain without lodging, but after being smartened up they find always someone to stay with, yet never are they forced, nor by billets or by any other means.[50]

The willingness to house soldiers increased substantially with the new regulations of the *serviesgelden*; they implied a regular source of income for numerous citizens, above all for the middling and lower income households. An English soldier in the Flushing garrison reported that many poorer inhabitants provided their living through the housing of soldiers.[51] Soldiers often ended up year after year with the same hosts, like Luym Smit

[48] Rooms, 'Bezoldiging', 540-541; Rooms, *Organisatie*, 238-246. Also in Germany the burden of housing soldiers fell upon the less well-off: Kroener, 'Soldat', 111. Fletcher, *County Community*, 195, 199, notes that in early seventeenth century England the costs of billeting should be reimbursed, but this was rarely effectuated.
[49] Rooms, 'Bezoldiging', 541-542; Rooms, *Organisatie*, 250. See also Black, *European warfare*, 225 on barrack building; for French barracks see Lynn, *Giant*, 159 and Parrott, *Richelieu's Army*, 505.
[50] Quoted by Vermeesch, 'Armée', 286.
[51] In 1589, De Graaf, *Oorlog*, 396.

who always stayed with Jan Otten in Doesburg. Other hosts, like Bernt Dumenbrinck, Vrouw ten Bergh, and Wessel Schaep, accommodated regularly four soldiers or even more. Even the local elite gave quarter, usually the higher officers. One commanding officer always resided at the house of the prominent regent Herman Baerken.[52]

Such peaceful conditions permitted soldiers to engage in leisure activities. Edmund Verney, a cavalry man, improved his Latin and French while he stayed in Utrecht garrison; Captain Jan van der Meulen indulged in his hobby to experiment with horticulture seeds in the Meurs garrison; and Lieutenant Johan Bentinck, who had served earlier in Brazil, introduced brazil wood furniture and South American tablecloth in the Doesburg garrison.[53] Such relaxed reports of soldiers stood in sharp contrasts with the garrison experiences elsewhere in Europe.

Fortifications: Costs and Compensations

Garrison towns received yet another kind of funding from the States General: for fortifications. At the start of the Revolt few towns in the north were fortified according to the recent insights of the *trace italienne*. Most improvements had been piecemeal, with a bastion here and a ravelin there.[54] Within a couple of decades that all had changed. Former towers were lowered and flattened and the high, brick walls that were too vulnerable for cannon were replaced by thick ramparts made of earth, first in Zeeland, then in Holland, and then also in the other parts of the Republic. Where water touched the rampart, stone strengthened the earthen construction. Bastions, usually not further apart from each other than the range of musket fire (225 to 235 meter), were broadened to permit the positioning of cannon. Bastions also received five angles to enable flank fire along the ramparts. A wet ditch (and not a dry one, such as in Italy) prevented the storming of enemy troops. Island-forts, called ravelins, and hornworks (two half bastions) constituted additional protection at vulnerable points. A 'covered way', covered by

[52] Vermeesch, *Oorlog*, 53, 109-111; for the lodging of soldiers in the small town of Doesburg in 1661-1668 almost 36,000 guilders were paid by the Council of State; *Ibidem*, 22. A minority of the troops preferred to stay at inns; as such, they boosted the business of the innkeepers.
[53] De Graaf, *Oorlog*, 556, 565; Frijhoff and Spies, 'Hard-Won Unity', 156.
[54] Westra, *Nederlandse ingenieurs*, 13-14; Soly, *Urbanisme*, 202; Gunn, Grummit, and Cools, *War, State, and Society*, 70.

breastwork protection, encircled the fortress to connect the outworks and permitted the organization of raids on part of the defense. The fortification as a whole, including outworks, was to be shielded from hostile views by a glacis, a gentle slope descending from the town. As a result the outlook of the towns changed radically. Next to the urban fortifications sconces (*schansen*) were built in the countryside, above all to control dykes or river crossings. In this way Maurice constructed a chain of fortified towns and redoubts, first along the Maas and Waal in the 1590s, followed by a similar line along the Yssel and the north-east.[55]

Such fortifications were costly. By tradition towns were responsible for their own fortifications. In the early days of the Revolt the urban communities paid for the constructions themselves, amplified often by a tax on the surrounding countryside, such as the *walgeld* in Gorinchem. Yet these solutions were insufficient for truly large-scale reconstructions. Gradually the provincial authorities and the States-General stepped in and arranged regular funding.[56] Since 1596 the States-General voted for a general repartition among the provinces to pay for the fortifications, first for 100,000 guilders a year, but the provinces soon decided to step up the Generality support since augmentations were urgently needed. From 1605 onwards, 500,000 guilders was voted for annually. This was a substantial amount, above all compared for example with France, that spent far less on its fortifications.[57] Individual provinces added considerable sums on their own account, which resulted in occasional expenditure peaks of some 2 million guilders annually (see Graph 4.1). Next to those expenses, towns devoted significant portions of their budgets for the new ramparts too.

The example of Gorinchem is illustrative of the significant funds involved. In 1584 the large-scale construction started; its costs can be estimated at some 250,000 guilders. The States-Provincial of Holland provided two-thirds of the funds, paid out of the local revenue emerging from the new provincial land tax (*verponding*). The town paid the remainder, which demanded almost 25 per cent of the urban budget during the time of construction. Within sixteen years the town's ramparts were renewed (see illustration

[55] Van Hoof, 'Met een vijand', 629-639.
[56] Vermeesch, *Oorlog*, 119, 121-124; Veenstra, *Gewestelijke financiën*, 258.
[57] On the limited expenses on fortifications in France, Lynn, *Giant*, 592; see also Kingra, 'Trace Italienne', 441.

4.1). The defense works counted eleven new bastions and a new rampart; the number of gates was reduced to four; at the same time the surface of the town expanded significantly, from 27 to 56 hectares.[58]

The new construction of Deventer, the inland commercial center at the Yssel, cost roughly the same as Gorinchem's, approximately 225,000 to 290,000 guilders. Building started in 1597; by 1621 the new fortification was ready (see illustration 4.2). Of those expenses, subsidies of the States General ranged between 47 to 61 per cent; the town itself thus provided between 39 and 53 per cent. Much of the generality funds came in with significant delays, but the urban government was in a position to disburse the sums in advance, permitting a steady advancement of the fortifications. Annually the fortification costs absorbed around 10 to 20 per cent of the urban budget during the period of construction.[59]

The small Gelderland town of Doesburg was too poor to contribute itself to its new fortifications, which cost around 150,000 to 200,000 guilders. The construction began in 1597, the same year as in Deventer, and were funded completely by the States-General. However, the sums did not come in soon enough and the restricted urban budget (some 5,000 per year) did not permit to bridge the gap temporarily like in Deventer; contractors left the works in 1598 again.[60] But then Spínola's offensive of the early 1600's spurred on the fortification program along the eastern frontiers. Maurice himself supervised these plans closely. In 1607 Doesburg's brick wall was demolished to make room for an earthen rampart. Within a couple of years the town had new ramparts, nine bastions, three ravelins, and two major outworks (see illustration 4.3).[61]

After the end of the Truce the fortification funds of the States-General appeared to have been well spent. In the winter of 1623-1624 enemy soldiers passed through the Yssel area, but they did not dare to attack Doesburg or the other newly fortified towns. Throughout the war, fortifications remained on the agenda of the provincial governments and the States-General.

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[58] Vermeesch, *Oorlog*, 125; the budget of Gorinchem was around 20,000 annually.
[59] Holthuis, *Frontierstad*, 85-86; the annual urban budget amounted to 22,500 guilders on average (see maps on 66-67).
[60] Vermeesch, *Oorlog*, 127-129.
[61] Vermeesch, *Oorlog*, 130-131, 134.

Earthen defense works might be cheaper to construct than brick ones, but the differences were not that substantial as is assumed in standard historiography, which mentions sometimes even a ratio of 1 (earth) to 20 (brick).[62] Fortifications continued to demand major expenditures. The brick bastioned constructions of Antwerp had cost over one million guilders in the mid-sixteenth century; hundred years later the new earthen bastioned walls of Amsterdam carried a price tag of 21 million guilders.[63] But by then, Amsterdam had grown into a large metropolis, larger than Antwerp. A better comparison might be found in the Deventer fortifications. A comparable brick construction was estimated to have cost around three times more than the actual earthen one.[64] Although less expensive, the construction was still considerably more expensive than is assumed generally.

In addition earthen constructions carried the disadvantage that they were much more costly in maintenance than brick ones because of the risk of sagging and crumbling. The ramparts' angle of 45 degrees necessitated the planting of thorny hedges that needed regular trimming. Furthermore a palisade of sharp-pointed poles of some two to three meters long had to be planted horizontally just under the parapet, which was quite labor intensive; these poles needed replacement at regular intervals in order to prevent rotting. For Maastricht's defense, for example, no less than 30,000 poles were needed.[65]

In the far north-east, along the eastern border of Groningen, three new fortresses emerged, Bourtange (1594), Bellingwolderschans (1603, later called Oude Schans) and Langakkerschans (1629, later called Nieuwe Schans). Ammunition-masters, convoy-master (collecting custom duties), overseers, and building and dike contractors were appointed. Apart from their salaries, and apart from soldiers' pay, these three fortifications received some 375,000 guilders during 1603-1653, spent on ramparts, dikes, buildings, canals, bridges, ironworks, spades and buckets, and other provisions (see table 4.3).

[62] Duffy, *Siege warfare*, 91.
[63] Soly, *Urbanisme*, 223; Koenen, *Voorlezingen*, 27. The provinces and the generality paid only for fortifications along the frontiers; non-frontier towns (such as Amsterdam) had to provide all the funds themselves.
[64] Holthuis, *Frontierstad*, 83, 91.
[65] Van Nimwegen, *Deser landen crijghsvolck* , 119-120; Vermeesch, *Oorlog*, 135.

Table 4.3 Generality expenditure on fortresses on Groningen's eastern frontier, for construction and provisions, in guilders, 1603-1653

Period	*Bourtange*	*Bellingwolderschans*	*Langakkerschans*
1603-1610	6136	7013	-
1611-1620	43925	25489	-
1621-1630	16209	53762	21127
1631-1640	13292	34253	50862
1641-1653	22844	39437	45064
Total	102406	159954	117053

Source: RAG, *Staten van Stad en Lande*, no. 527, Ordonnanties op gemene middelen Wedde en Westerwolde

Up to the end of the Eighty Years' War, regular funds came about for the maintenance of the existing fortifications and the construction of new ones. In the later 1640s the States General continued to reserve 300,000 annually and the provinces furnished at least 200,000 additional funds (see Graph 4.1). Such expenses always carried a considerable positive economic effect, in particular for the local contractors and their laborers. In Deventer, for example, each year 33 to 41 laborers worked on the ramparts; in addition shippers and wagonners, and victuallers of food and drink were involved at the actual constructions.[66]

The fortifications received regular inspections by provincial controllers and by a committee of the Council of State on an annual or bi-annual basis. The urban governments welcomed such inspections, since they usually entailed additional spending and a transfer of sums by the Union of provincial authorities. In Holland the Fortification Master and the provincial representatives inspected the ramparts and bastions together with the local authorities. Captains of the garrison, local polder officials, and inhabitants had the opportunity to voice specific requests. Gorinchem obtained at these inspections almost 90,000 guilders for the maintenance of its fortifications from 1625 to 1648. The

[66] Holthuis, *Frontierstad*, 90; on the significant numbers of workers employed in fortifications elsewhere, see also Soly, *Urbanisme*, 268; Tallet, *War and Society*, 227, even mentions 6,000 workers on Milan's fortifications in 1657.

assignments were sold usually to the lowest bidder, but also earlier experiences with the contractor were taken into account.[67]

These rather advantageous arrangements, however, came to a rather sudden halt in 1648. The expenditure on fortifications plummeted because the States-Provincial of Holland decided that no subsidies were needed any more. The small peak in 1652 in Graph 4.1 was caused by expenditure on part of Zeeland and Groningen.[68] Even though some individual contractors managed to obtain substantial maintenance contracts (the annual or bi-annual inspections along the frontiers continued),[69] the great time of spending on fortifications was past.

The impact of declining subsidies was felt above all in the inland provinces, for example in Doesburg. Jacob Muys, who had earned 3,400 guilders annually for maintaining the town's fortification during the Eighty Years' War, obtained a similar contract in 1649, but now for only 1,130 guilders per year. Soon the covered road was overgrown; part of the ramparts and bastions were excavated by the inhabitants, who established gardens in their stead. The preservation contracts were difficult to sell; not even one contractor in Doesburg was willing to take on the works needed in 1658. Soon the fortification weakened; ramparts, bastions, and thorny hedges had partly been washed away by the river; the ditch itself was full of sand; inhabitants not only dug parts of the ramparts, but also from the hornwork and breastworks. Since private contractors could not be found for maintenance, individual officials of the urban government or local army officers fulfilled the repair contracts, like the Artillery Master Jan Ooms, Captain Maerten Haesten, and the Clerk Johan Mentingh.[70]

The Peace of Westphalia also changed the position of the urban militias. They lost their immediate military duties. In Gorinchem the urban authorities reduced the formation from eight to four companies. All male inhabitants were still formally required to participate, but many preferred to buy off their duty at a rate of five guilders a year. This changed early in 1672, when the war threat caused the sudden revival of the militia companies. The States-Provincial of Holland ordered their regular exercise in April. But

[67] Vermeesch, *Oorlog*, 135-136..
[68] Ten Raa and De Bas, *Staatsche Leger*, V, 373, 380, 389.
[69] Vermeesch, *Oorlog*, 200.
[70] Vermeesch, *Oorlog*, 222-225.

numerous burghers were unwilling to take up arms. Gorinchem experienced major difficulties to fill the eight companies. Apparently the community solidarity of the Eighty Years' War had faded away. By January 1673 the States-Provincial of Holland decided to take firm action; over twenty thousand citizens were mobilized; they received compensations when they took up service in another town. In inviting militias from other towns the danger of militias turning against their own government was diminished. Gorinchem's militia departed for elsewhere, and the town received 750 militiamen from Haarlem and 250 from Alkmaar.[71] These attempts to introduce some kind of compulsory military service proved shortlived however, and disappeared when the direct war threat of the 1670s had subsided. In contrast, France started in these decades to construct a military service, partly based upon the former urban militias.

The willingness to support the cause of the Republic obviously received a major blow after 1648. The reduction of garrisons in the wake of the Peace affected urban prosperity in a negative sense in all frontier areas. In 1648-1650 all companies were cut down to 50 soldiers, and for almost two decades Gorinchem only housed 150 to 200 soldiers. In that same period Doesburg's garrison even counted no more than 50 soldiers. In addition, the compensations for housing soldiers were halved.[72] As a result both towns suffered from an economic downturn; the revenues of the beer excise dropped and the local artisans and traders suffered from the lower demand.[73]

This all weakened the defense of the frontier towns. With the arrival of the French in 1672 Doesburg was sufficiently fortified, the fortifications having been repaired in time, with the batteries in place and a strong garrison of 3,500, plus the urban militia. But the town surrendered remarkably fast. At a certain point during the siege a number of burghers, farmers, and town soldiers planted a white flag on the ramparts. The governor ordered to take it down, but the urban government supported the civilians, and then the military command decided to give in. The consequences were disastrous; the French

[71] Knevel, *Burgers*, 257; Vermeesch, *Oorlog*, 196, 203-204. The compensation amounted to ten stuivers a day, which was remarkably less than in the Eighty Years' War, when such compensations had paid 12 stuivers a day. The militia also had to support the fortification repairs, but this was done only reluctantly.
[72] Ten Raa and De Bas, *Staatsche Leger*, V 393-394; a temporary increase in the compensations was noted in 1667-1668.
[73] Vermeesch, *Oorlog*, 113, 195, 218. The numbers increased temporarily in Doesburg in 1665. See also Steegen, *Kleinhandel*, 265, for comparable negative economic effects after the decrease of the numbers in the Maastricht garrison.

destroyed 33 houses and another 55 were set on fire; troops were enforced upon the population, and even the burgomaster had to house four horsemen. But most far reaching was the destruction of the fortifications, which left the town an easy prey for passing soldiers for the coming decades.[74] After the French left, the repair of the fortifications was not regarded as a priority any more; obviously, the great time of beneficial transfers from the Union and province had passed.

Conclusion: The Strength of the Urban Community

From the 1590s onwards fortifications and garrisons strengthened the Dutch urban communities. This is no superficial remark, since usually the presence of even friendly troops increased the risks for the local population in sixteenth and seventeenth century Europe and burdened their economic structures. After a difficult start in the 1570s the Holland arrangements regarding the garrisons turned out quite favorable. In the 1590s such reforms were extended all over the Dutch Republic. Together with the drill and discipline that have been dealt with in earlier chapters, the measures regarding the housing of troops, the prohibition of soldiers to engage in another trade, and the obligation for soldiers to pay excises and other taxes, all stimulated a peaceful coexistence of troops with the local population.

Thanks to this nonviolent coexistence the town inhabitants were in a position to enjoy the numerous transfers of the central and provincial authorities towards their garrisons. The free choice to lodge soldiers or not and the opportunity to earn some funds in the lodging of soldiers provided a welcome additional income for the middling and lower classes. The considerable expenses on the earthen fortifications, which were more substantial than thought usually, not least because of the additional maintenance costs, provided ample opportunities for local contractors and laborers. Throughout the Eighty Years' War the cooperation between garrison and burgher militia was strong. No wonder, because the soldiers stimulated local demand, from which artisans and traders profited, while at the same time the presence of the troops meant increased revenues from the

[74] Vermeesch, *Oorlog*, 227-228, 230.

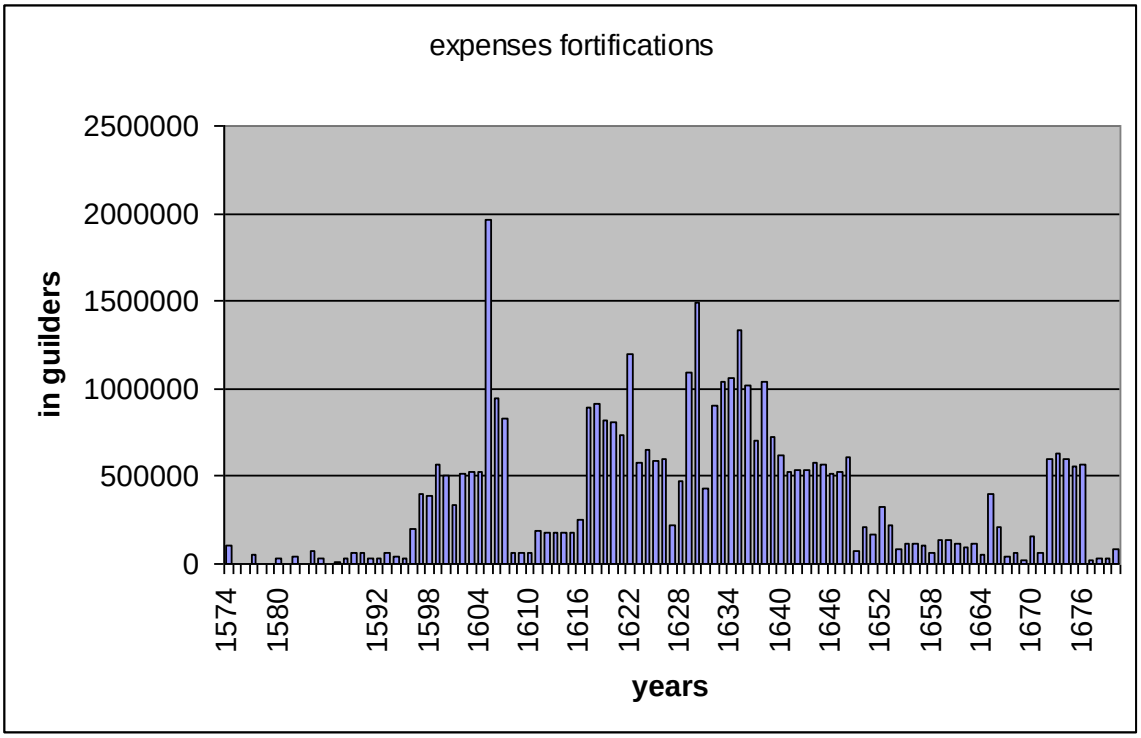
excises. To a substantial degree thus the military expenses of the Dutch Republic entailed sizeable positive effects for the towns that housed a garrison.

The Peace of Westphalia brought about a sudden change in this regard. With the lowering of the numbers in the garrisons the frontier towns noticed a substantial economic decline. Since the direct war threat faded out the population was less willing to serve in the militia. All kind of advantageous compensations (fortification construction and maintenance, serving in the militia, the housing of soldiers) received significant cuts. Even though much of the former garrison arrangements continued, such as the regular fortification inspections by central and provincial authorities which was usually accompanied by new spending, the dynamic had disappeared. By the time of the French invasion of 1672 the local bonds between garrisons and their urban populations had undoubtedly weakened; the Franco-Dutch war itself proved too short-lived to boost the loyalty of the Dutch citizenry to comparable levels of the Eighty Years' War.

Even then the state of the Dutch Republic still showed a resilience that continued to rely upon strong local bonds. The Wars of Dutch Independence had resulted in state formation in which the power of individual urban communities reigned high. A likewise link between war expenses turning out advantageously and urban oligarchies strengthening themselves had been observed earlier in highly commercialized Italian city states such as Florence and Venice.[75] The actual war transfers in the Netherlands strengthened the local governments too; the garrisons contributed to higher urban budgets and the fortifications attracted men and money, while the new ramparts themselves brought prestige and awe. The question remains, though, whether the Revolt was as profitable for the inhabitants of the countryside as for the burghers in the towns. This question will be discussed in Chapter 5.

[75] Caferro, 'Warfare and Economy', 204-205.

Graph 4.1



Illustrations (maps of fortified towns) to be added

Chapter 8. The War's New Economic Opportunities

> You would be surprised about the shipping and trade which is here with all parts of the world. Here no talk about war; one travels all through the country, from Emden to Middelburg in Zeeland, without carrying a gun.[1]

The Dutch Wars of Independence destroyed lives and capital assets, but also created new economic opportunities. The quotation above is from Hans Thijs, a young merchant who migrated from Antwerp to Amsterdam. The letter to his family dates from 1594 and shows that the economic prospects for the northern Netherlands must have looked quite promising despite that decade's intensive round of warfare, even before the 'garden' of the Dutch Republic was closed (see Chapter 1). It was also the decade in which Maurice and Van Oldenbarnevelt introduced a series of reforms that were quite conducive for soldier's discipline and the Republic's efficiency in war finance (see Chapters 2, 3, and 7).

The political scientist Henry Barbera enumerated six ways how wars might encourage new economic opportunities. Intense military conflicts could 1) stimulate managerial skills; 2) tap new credit resources; 3) concentrate capital in increasing taxation; 4) create new industries; 5) standardize output; and 6) exploit underused natural resources. But Barbera warned that not all countries were equally capable to do so. Much depended upon the situation prior to war. Above all a substantial mastery over the environment (energy resources) and a wide variety of institutions and resources (social and political structures) offered opportunities for war-time growth. Pre-war economic performances and pre-war social and political institutions thus weighed heavily. Following Barbera, Seonjou Kang and James Meernik emphasized in their article 'Civil War Destruction and the Prospects of Economic Growth' the importance of political organization; in the twentieth century post-war recovery was most rapid in democratic nations because of the greater respect for law and a more suitable environment for investment, entrepreneurship, and capital formation. They also pointed to the advantages of pre-war economic growth and the availability of a pre-war capital stock.[2]

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[1] Quoted by Gelderblom, *Zuid-Nederlandse kooplieden*, 131.
[2] Barbera, *Rich Nations*, 6, 34, 43-44; Kang and Meernik, 'Civil war', 104-105.

Barbera's view corresponds remarkably well to the experiences of the Thirty Years' War, whose economic impact was highly uneven throughout Germany. War violence seemed to have aggravated pre-war negative trends while post-war economic bloom occurred in areas that had experienced pre-war economic growth. Above all towns like Hamburg and Bremen, that had been on the rise before 1618, profited from the war. On the other hand towns like Augsburg and Nuremberg barely recovered. These former important centers of trade suffered from the fact that riches from Italy and the Middle East now moved increasingly overseas instead of overland. The Thirty Years' War seemed to have hastened and intensified this trend. Italy's wars produced a similar variegated picture in which only a couple of highly commercially developed city-states gained from the war while numerous other communities lost. Likewise, pre-war commercialization facilitated rapid recovery in the war-stricken Meuse region. Most warfare appears to have reinforced economic trends; only rarely new ones were initiated.[3]

Yet wars could spur on the development of certain economic branches, and above all arms industry and mining; this is exemplified best by the copper mines and the vast export of guns that continued to bolster the small economy of Sweden throughout the seventeenth century.[4] But also the provisioning of the army entailed a strong economic demand. Michael Braddick stressed that shoemakers, carters and carriers gained from the English Civil War: "The war machine was also a customer, not simply a burden".[5] The duchy of Frýdlant is an excellent example of this link between war and economy. In the later 1620s the home base of Wallenstein's 100,000 troops could deliver 10,000 pairs of boots and 4,000 uniforms within a period of ten weeks to the Prague magazines. The Frýdtlandt peasants and artisans also operated with amazing efficiency in the provision of bread, forage, and beer.[6] As a result the duchy's economy bloomed.

In view of the importance of pre-war economic trends this chapter looks at the economic development of the northern Netherlands earlier in the early sixteenth century. The first two decades of the war had a devastating effect, not least because the Eighty Years' War was very much a civil war in these years. By the early 1580s some recovery was possible, but the pace of revitalization was highly uneven. The chapter explores the background of the

[3] Tallet, *War and Society*, 231; Ergang, *Myth*, 28-30; Kamen, 'The Economic and Social Consequences', 61; Peter Wilson, *Thirty Years War*, 798 ff.; Rabb, 'Effects', 49, 51; Lane, *Profits*, 81; Caferro, 'Warfare and Economy', 204-205; Gutmann, *War and Rural Life*, 7.
[4] Hale, *War and Society*, 220, 224; Sombart, *Der moderne Kapitalismus*, II-1, 534; Roberts, *Swedish Imperial Experience*, 49-52.
[5] Braddick, *God's Fury*, 397, 399; see also Tallet, *War and Society*, 220-221; Soly, *Urbanisme*, 334.
[6] Polišenský, *War*, 137-139, 150-151; Pagès, *The Thirty Years War*, 102, 145.

different paces for recovery in Holland, Overijssel (Deventer), and Brabant (Tilburg). But the war offered also a direct stimulation for arms producers and army provisioners. Not all Barbera's points can be examined in this chapter, but several have been dealt with at an earlier stage already, such as the tapping of new credit resources and the concentration of capital in increasing taxation (Chapter 7) and the exploitation of underused natural resources (in particular with regard to the extension of trade routes and the establishment of colonial companies, see Chapter 6). Below the impact of army demand is studied, analyzing to what degree Barbera's points regarding new managerial skills, new industries, and standardization of output occurred. Overall two main forces seemed to have been at play; firstly the concentration of (new and old) economic opportunities in Holland; and secondly the commercialization of warfare, or in short the ability to earn money from waging war.

Rapid and Enduring Recovery in the Maritime West

The economy of the provinces in the northern Netherlands had been on the rise since at least the fifteenth century. Above all in the coastal districts urbanization advanced; commerce and industry expanded. Holland's labor market was characterized by a high degree of flexibility since only a quarter of the population was engaged in agriculture. In the countryside the main proto-industrial employment consisted of peateries, fishing, shipping and shipbuilding, brick-production, and bleaching.[7] Wind and peat provided abundant energy resources for all kinds of enterprises. In the towns the labor force specialized in numerous and variegated industries. Trade flourished because of the multifarious connections over land and over seas, to which the trading links of the vast Spanish empire were added since the early sixteenth century. In all the economy of the maritime Netherlands was on the rise and showed a high degree of commercialization.

But by the mid-sixteenth century the pace of economic development slowed down. A major depression started in 1557 following the default of the Spanish government. The financial crisis of Antwerp radiated to all of the Low Countries because of the Scheldt's town central role in trade; virtually all other towns in the region (including those in Holland) depended strongly upon Antwerp's prosperity and links. In the 1560s a war in the Baltic added to the miseries by disrupting the grain trade; prices shot up. The flood on All Saint's

[7] In addition Holland markets had less institutional barriers than other provinces; see Van Bavel, *Manors*, 239-240, 248, 375, 392-393; Van Bavel and Van Zanden, 'Jump-start'.

Day in 1570 inundated vast coastal areas and the next year a general grain failure throughout north-western Europe resulted in a near-famine situation. Alva's embargo on trade with England added further to the high price level, the rising unemployment, and the substantial drop in the standard of living of the lower classes.[8]

The warfare in the early 1570s initially intensified this downward trend. Wealthy royalist burghers left the towns of the northern Netherlands for the south; wealthy dissenter merchants fled to German towns or England; trade was disrupted by the Sea Beggars; the fisheries almost halted as no salt was imported; and sieges, inundations, and undisciplined soldiers upset existing property rights all over. But since 1576, after the Spanish troops had virtually disappeared from Holland's soil, economic recovery was remarkably rapid. This was to be expected, following Barbera, because of the province's advanced and diversified economy, the stimulating policies of the provincial government and urban governments, and the civilian control over the military that showed an increasing degree of professionalization and discipline (see Chapters 2 and 3). Unemployment was rampant in the early 1570s, but the army and navy provided an outlet, also for those who had to flee the countryside because of inundations.[9] Soldier's pay was not high, but the advantage was its regularity thanks to the increasing buffer of loans from the local elites and the broad tax base (see Chapter 7).

In Holland the standard of living improved rapidly after the 1570s as unemployment declined and people received their wages on a more regular basis. This trend continued throughout the war, although the early 1620s and again the early 1630s witnessed temporary dents because of high prices related to poor harvests and economic warfare (trade blockades, Chapter 6). Industries recovered, expanded even beyond former levels, and new industries arose. The labor productivity increased thanks to the high level of technological development and the intensive use of energy, stimulated further by an almost continuous inflow of persons, knowledge, and capital to Holland. That province's economy stood out in realizing a substantial per capita growth between 1580 and 1650 while almost all other European countries were plunged in crisis and their economies suffered from (civil) wars.[10]

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[8] Van der Wee, *Low Countries*, 275-277; Noordegraaf, *Hollands welvaren*, 136-137, 170; Kaptein, *Hollandse textielnijverheid*, 183-184; Lesger, *Handel*, 45, 113, 134; De Vries and Van der Woude, *First Modern Economy*, 364.

[9] Swart, 'From Landsknecht', 77. The influx of silver in the Southern Netherlands caused a rising of prices, but in the north it stimulated industry and trade. For example in west Frisia the shortage of coins ended and the riches augmented; Fruin, *Tien jaren*, 241.

[10] Davids, *Rise*, 73, 533; Noordegraaf, *Hollands welvaren*, 157, 170-175; Van Zanden 'Economic growth', 17; Noordegraaf, 'Dutch industry', 142; De Vries and Van der Woude, *First Modern Economy*, 341. The period of economic growth was accompanied by a growing polarization between rich and poor; still the poorer sections of society managed to maintain a reasonable standard of living.

In the meantime victories of Maurice, William Louis, and Frederick Henry created and maintained a safe buffer for Holland's economy. Since the 1590s the territory of the other provinces constituted the new contested frontier areas. The safety at home was shored up by institutions that protected property rights and lowered transaction costs, as was summarized neatly by Jonathan Israel:

> The merchant élite of Holland and Zeeland had at their disposal financial institutions and resources, and a degree of specialization in financial, brokerage, and insurance techniques, such as none of their rivals possessed and which together afforded an immense and continuous advantage in the international arena.[11]

Holland entrepreneurs thus needed to spend less on protection, an advantage that has been labeled by Frederic Lane as 'protection rent'.[12] The expansion of the buffer zone also created new possibilities for Holland's traders. For example the capture of Lingen in 1597, to the eastern border of the Republic, permitted the rise of a Danish-Holland oxen trade, stimulated by the ongoing urbanization in the west and the higher demand for meat (in the growing towns but also because of the demand by colonial companies). Before the war Danish oxen had arrived in Holland only via southern Netherlands merchants.[13]

The disappearance of the traditional merchant connections through Antwerp, in particular after 1585, necessitated the development of a new long-distance trade network. Amsterdam was able to take up the challenge because of its extended links in the Baltic and the available capacity to expand further over the Atlantic. Its preponderant position within Holland's trade regulated the provisioning of export goods from industries of nearby towns like Haarlem, Leiden, or Delft. Also Amsterdam's own industries advanced and diversified. The political independence of the Republic and the high degree of urban autonomy yielded substantial advantages for its merchant community. No trade route was hampered by monarchical or imperial institutions; even trade with the enemy constituted a possibility, albeit conducted against a high license fee (*licent*) or covert when a total ban of trade was issued.[14] The practical tolerance for all kinds of religions was outstanding and attracted numerous foreign merchants. New institutions like the Bourse, printed price sheets, and the Bank of Amsterdam furnished excellent services to the merchant community. Refugees that

[11] Israel, *Dutch Primacy*,79.
[12] Lane, 'Role'; Lane, *Profits*, 57; for a discussion of this term see Glete, *War and the State*, 54 ff.
[13] Gijsbers, *Kapitale ossen*, 60.
[14] Van Dillen, *Van Rijkdom*, 103-107; Israel, *Dutch Primacy*, 12. See also Chapter 6.

had fled the south and had first preferred other harbors like London, Hamburg, and Middelburg, now increasingly chose for Amsterdam.[15]

The blockade on Antwerp's trade undoubtedly spurred on Amsterdam's development. But the enormous influx from the south did not entail a mere continuation of Antwerp's trade just somewhat more to the north. 1585 did not halt Antwerp's trade completely. The blockade rendered above all its seaborne trade risky and inconvenient, and more than before the town now looked towards the hinterland for its long-distance connections. That was nothing new: the Scheldt town's long-distance network had always gravitated towards the routes to German and Italian cities overland. Antwerp's merchants themselves held few ships of their own; the harbor was dominated by vessels of Italians and the Hanse.[16] Amsterdam though had developed a strong merchant shipping network of its own, already before the war. The town's economy was stimulated not only by the relative decline of Antwerp, but also by the decline of the Hanse network, next to the general shift in European trade routes from land to sea. Increasingly its merchants sailed to the Mediterranean themselves and started to explore new routes. Thus Amsterdam's trade network of the 1580s and 1590s was based upon former links, but also represented something new.[17]

Contrary to standard historiography the arrival of migrants from the south entailed no simple influx of Antwerp's wealthy and established merchant elite. Recent research has shown that those who left for the north were rather young, entrepreneurs who stood at the start of their careers. Most made their fortunes only *after* their establishment in Amsterdam. Their connections to capital and technologies from the south facilitated the founding of the new businesses, but much of Antwerp's leading merchant and entrepreneurial circuits stayed in fact in place.[18]

The economic contribution of migrants from the south varied depending upon the different conditions in the different towns. Contrary to common knowledge the new migrants did not introduce the 'new draperies' made of fine wool (as opposed to the 'old draperies' of coarser wool). This industry did boom in Leiden, thanks to the influx of southerners, at the expense of the traditional draperies that had used the coarse wool, but the new draperies had existed before that date. But in Amsterdam migrants from the German territories dominated the Amsterdam luxury textiles and finishing industry, not those from the south. Remarkably in that town a totally new industry arose, the sugar refinery, which was manned by southern

[15] Lesger, *Handel*, 130, 168, 176.
[16] Israel, *Dutch Primacy*, 41; De Vries and Van der Woude, *First Modern Economy*, 369.
[17] Fruin, *Tien jaren*, 201; Ergang, *Myth*, 31.
[18] Gelderblom, *Zuid-Nederlandse kooplieden*, 64-70, 117-119, 149, 153; Gelderblom, 'From Antwerp';

migrants, but no single sugar refiner from the south had settled there. Obviously the immigrants brought skills and knowledge from an Antwerp branch of industry in which they had not practiced themselves. In all, the new political circumstances, the different opportunities in the different towns, and the openness of Holland society offered numerous options in which innovations from indigenous background mixed with innovations of newcomers. The result was a thorough modernization of industry within the north, above all in Holland and above all in Leiden and Amsterdam.[19]

In the midst of the industrial expansion new routes overseas opened up, again not caused by the mere migration of an Antwerp network but by the mixture of Holland and Brabant experiences into a new innovative whole. The temporary peace with the Spanish during 1609-1621 permitted an explosion of the trade, among others with the East and West Indies but also within Europe itself. From the 1610s on Holland merchants occupied central positions in virtually all long-distance networks of Europe. The remark by a Spanish courtier that the Truce had made the Dutch richer, but the Spanish poorer, was all too true.[20]

It is of interest to look again at Antwerp's development during the war here. Antwerp lost its primordial position in international trade not only because of the Dutch Wars of Independence or because of the blockade of 1585. As noted before a downward economic trend had started in the 1550s. The crisis of 1557 (the first bankruptcy of the Spanish-Habsburg government) had dealt a deadly blow to the Antwerp financial market. Genoa took over Antwerp's prime position in international finance, and not Amsterdam; that town had to wait before the first decades of the seventeenth century. Antwerp's cloth industry also started to contract in the 1550s, not with the start of the Revolt. Antwerp could not profit from the shift of European trade towards routes overseas in the same way as London, Hamburg, or Amsterdam did. Indeed the economic blockade prevented further imports of overseas resources and the whole decade of the 1580s was a period of severe economic crisis. Yet the Brabant town did not experience only misery. Recovery was surprisingly rapid in the 1590s and soon the economy of Flanders and Brabant showed a renewed vitality. After all the country enjoyed the advantage of a previously commercialized and diversified economy. By the 1660s the former industrial production level of the 1560s was reached again. Growth rates

[19] Kaptein, *Hollandse textielnijverheid*, 188-191, 244, 255; Poelwijk, *In dienste*, 132; De Vries and Van der Woude, *First Modern Economy*, 367.
[20] Haan, 'Prosperität', 114; De Vries and Van der Woude, *First Modern Economy*, 672; Anderson, *War*, 73.

were lower than in Holland though, and also the standard of living declined in Antwerp after 1615, while in the north it continued to grow during the war.[21]

Holland's expansion furthered the rise of new harbors in the north; former harbors were extended.[22] After the Truce the commercial expansion slowed down because of a general depression in Europe. Within Holland itself economic growth continued however, and the Golden Age was to last for another couple of decades, up to around 1675. The growth rates of the domestic economy became less impressive after 1650 though, and the year 1663 can be regarded as a year of crisis, but true stagnation began only in the 1670s. By that time England and France had started to levy high import duties on Dutch goods. Because of the improved protectionism of the competitors of the United Provinces several branches of industry lost their position in foreign markets, even though some branches (potteries, luxury textiles) maintained or even expanded their production levels. At the same time the Dutch also experienced increased competition from the English and French in East and West Indies.[23]

The Dutch Golden Age thus faded away in the last quarter of the seventeenth century, although the United Provinces maintained the highest per capita income from all over Europe up to the end of the eighteenth century. In the meantime several other maritime regions of the north experienced a somewhat less golden age. Zeeland had recovered rapidly after the 1570s, profiting from the increased transshipments needed for the Antwerp trade, but since 1585 less and less goods arrived to and from the Brabant town and Zeeland's economy declined. The blow of the temporary 1598 trade ban turned into a permanent disaster for the area and the province did not even recuperate during the Truce. Only the colonial companies generated a significant surplus; numerous Zeeland shippers turned to privateering, which developed into a major source of employment there.[24]

Wartime recovery had been rapid in the north of Holland and in Frisia too, but the Golden Age lasted shorter as compared to the core area of Holland (below the line Haarlem-Amsterdam). A sharp decline set in after 1650 which hurt towns like Enkhuizen, Hoorn, and Alkmaar in North-Holland, next to Groningen and Frisian towns like Harlingen and Dokkum. This downturn coincided with a general decline in agricultural prices, which has been described by Braudel as a condition for the whole of Europe in the second half of the

[21] Van der Wee, 'Stedelijke economie', 116-119; Van Houtte, 'Onze zeventiende eeuw', 4-8, 16-17; Verlinden, 'En Flandre', 28; Thijs, *Van Werkwinkel*, 170; Dambruyne, *Mensen*, 351; Noordegraaf, *Hollands welvaren*, 157.
[22] Gelderblom, 'Organization', 233, 248; Israel, *Dutch Primacy*, 93, 137; De Vries and Van der Woude, *First Modern Economy*, 368, 376, 405; Davids, *Rise*, 101.
[23] De Vries and Van der Woude, *First Modern Economy*, 336, 344, 403, 411-412, 673; Snapper, *Oorlogsinvloeden*, 76, 111.
[24] Enthoven, *Zeeland*, 162, 178-213, 228-231; Lesger, *Handel*, 136.

seventeenth century.[25] This trend hurt these regions that depended strongly upon agriculture, and caused also Zeeland to descend further down the wealth-scale.

The highly urbanized core of Holland suffered far less from the lower agrarian prices after 1650. Towns increased because of (peasant) immigration but also because this was the place where the soldiers got their clothes and boots, and arms and ammunition. The grip of the towns in the political system was strengthened, while inundations and scorched earth campaigns had eroded the economic base of the landed nobility and monasteries.[26] Holland's urban and maritime core continued to attract more migrants, more knowledge, and more trade up to the 1670s. The Golden Age was thus very much a (south-) Holland Golden Age.

Declining Trade Opportunities Inland

Overall the positive economic trend tended to gravitate thus towards the maritime core of the Republic. Before the Revolt Holland's economy had enjoyed already advantages over the other provinces, yet in the course of the Dutch Wars of Independence the divergence became more outspoken. Holland's rapid development was accompanied by a decline of economic opportunities in the rest of the Republic. Recurrent trade blockades and high new custom duties levied upon the river trade damaged the former trade hubs inland. This will be illustrated by looking more closely at Deventer's economy.

This IJssel town thrived before the Revolt because of its central place in inland trade. War caused the closing down of several of its most important linkages and hindered numerous others. The effects of the trade blockades imposed since the 1590s proved long-lasting. Merchants started to avoid the Deventer market because of the temporary higher costs and by doing so they found permanent cheaper alternatives. In 1599 the transport of a barrel of Frisian butter between Lingen and Amsterdam via Deventer cost 183 stuivers, but overseas via Emden (East Frisia) 141 stuivers. Salt cost even three times as much when shipped through Deventer instead by way of Emden. Not only the higher duties counted, convoys also caused additional expenses. Armed horsemen had to accompany the goods from Holland destined to Munster, Cologne, Frankfurt, Augsburg, Nuremberg, and so forth. The difficulties for the IJssel town were exacerbated because of trends of a more structural character. Next to

[25] Van der Woude, *Noorderkwartier*, 610; Faber, *Drie eeuwen Friesland*, 392.
[26] Also in the Thirty Years' War the agricultural economy was hurt more severely than the commercial enterprises in the town. Redlich, *German Military Enterpriser*, I 499, 508; Kamen, 'Economic and Social Consequences', 50-51. See also Chapter 5.

the already mentioned tendency of transport becoming cheaper over sea than over land, also the famous traditional fairs, the network on which much of Deventer's wealth depended, became less important in the long-distance trade. In this way warfare thus precipitated ongoing trends that were not yet fully perceived by all.[27]

Deventer, like the other Dutch river trade centers, languished also because several traditional trade hubs in the German hinterland suffered during the war. Cologne entered upon a period of commercial and industrial insignificance because of the recurrent closing of the river trade. On the Rhine the number of tolls increased; no less than thirty customs stations existed between Strassburg and the frontier of Holland. Wine and wheat shipped from Mannheim to the Dutch border trebled in price; timber was about the only thing that could be moved down the river to Holland with some profit. For their foreign trade Cologne, Mainz, Krefeld, Mannheim, Düsseldorf, and Coblenz became dependent upon transport overseas which was increasingly dominated by Holland merchants. The Thirty Years' War thus destroyed the traditional long-range economic linkages which led to a persisting regionalization of the German inland economy.[28]

After the Truce, furthered on by the river blockades of 1623, 1625, 1627, 1628, 1629, and again of 1635-1636, the trade that formerly went through Deventer, Zwolle, and Nijmegen was diverted now through Hamburg and Bremen, and ended often only up in Deventer, Zwolle, and Nijmegen after being shipped through Holland. This shift also hurt Dordrecht, in the south-east of Holland and by tradition the province's foremost river trade center. The frustration of the river-trade merchants with the repeated trade bans manifested itself when in 1636 the States' reconstruction of the Schenkenschans, the fortress located at the strategic fork of the Rhine and Waal river and used to implement the trade bans and high custom duties, was destroyed by representatives from Nijmegen and Dordrecht.[29] This brutal act caused a widespread uproar in the Republic.

Next to the reallocation of trade routes also the Deventer woolen industry suffered increasingly from competition on the export market, above all by Leiden cloths. The urban authorities stimulated the manufacture of a new cloth, bombazine (a mixture of silk and wool), to counter this trend. They attracted new immigrants, mainly from German territories, by promising them freedom from certain duties. But the Deventer bombazine success was short lived, since the town regulations limited the number of looms per master to four. Soon

[27] Hemann, 'Beziehungen', 149-150; Holthuis, *Frontierstad*, 136, 143, 147, 196. The costs of convoy in the Meierij added on average 20 per cent to the transport costs, see Adriaenssen, *Staatsvormend geweld*, 165-166.
[28] Ergang, *Myth*, 30-33; Friedrichs, *Urban Society* 82; Landers, *Field*, 353.
[29] De Graaf, *Oorlog*, 535.

not the Leiden competition mattered any more; the bombazine from Amersfoort (Utrecht), where bombazine masters experienced less limits in the number of looms, drove the Deventer textiles out of the market.[30]

Deventer's decline was not only economic. Until 1578 the town had cherished its position as an autonomous, free imperial city with a traditional, direct link to the Holy Roman Empire. Because of the war, its political and economic orientation became clearly subordinated to the Republic and above all to Holland. But even though the town's role as transit center for international trade faded, Deventer remained a center for local trade. The population even increased again after the heavy blows of the late sixteenth century. The reconstruction of the town after the war damages resulted in a rising number of migrants; the redevelopment involved not only the fortifications but also the repair of the quays, the crane, and churches next to the construction of a new bridge, a new meat hall, and other public buildings. Not all this work was sheer necessity; the embellishments showed a renewed urban pride and radiated a strong trust in the future. Also the war exerted an indirect, positive influence since the demand of the local garrison stimulated the workshops of the smiths and the local cloth producers.[31]

In all the economic opportunities of the inland towns thus did not perish totally, yet the range of options had declined in favor of Holland's development. Blokzijl, originally a small fortification on the eastern border of the Zuiderzee, developed into a flourishing harbor for peat and also the Danish oxen trade because of its orientation on the Holland market.[32] For the products from long-distance trade the local merchants became increasingly dependent upon Amsterdam or other Holland towns since the high customs duties on the river trade were to remain after the war.

Agrarian Produce and Proto-Industry during the War

Agrarian communities inland fared quite differently again. Chapters 2, 3, and 5 described how increasing discipline of the armed forces and efficient fiscal administrations improved gradually the condition of the peasantry. The financial burden because of the war was high, but thriving urban economies might shore up the recuperation of the countryside in providing

[30] Holthuis, *Frontierstad*, 171.
[31] Holthuis, *Frontierstad*, 120-121, 145, 164-169, 179-184, 197. See also Chapter 4.
[32] Gijsbers, *Kapitale ossen*, 125-127.

financial support and exerting strong market demand.[33] Yet with the declining opportunities in river trade, inland towns expanded far less as compared to Holland. Also pre-war economic conditions mattered.

An analysis of the accounts of rent collection in rye of the *Geefhuis*, a charitable institution in Den Bosch with numerous farms all over the area, can illustrate some of the agrarian difficulties of the Meierij district (see graph 8.1). The negative trend had already begun before the war with substantial lower harvests in the later 1550s. The pillaging and plundering of soldiers in the 1570s and 1580s thus came in a period in which the farming communities had little reserves. The books show how in the 1580s the revenues dropped drastically because of the scorched-earth campaigns. Interestingly in the 1590s the level of rye rent even sank below the level of the 1580s. True recovery was only possible during the Truce, but even then the pre-war level was not reached. Since not all accounts survived, a continuous analysis is not possible, but evidence of the 1660s shows that by then the levels of the 1560s were still not equaled. By then, the earlier mentioned general agrarian crisis that lowered agricultural prices since 1650 precluded improvement.[34] Because of the lower level of agrarian prices in the second half of the century, likewise the farmers in the Almelo district of Overijssel experienced great difficulties to recover from the blow of the 1672 invasion.[35]

Graph 8.1**.** Average annual Geefhuis income in rye from its farms, 1538-1628

Source: Adriaenssen, Staatsvormend geweld, 291.

In the Meierij numerous peasant households tried to overcome the war devastations with proto-industrial activities. Marauding soldiers had been usually less interested in looms or spinning-wheels than in chickens or grain.[36] But war weakened the pillars of that industry since Den Bosch linen merchants suffered from the Holland competition while their cloths were burdened with high custom duties too. Meierij peasants increasingly sent their cloths for finishing to Holland instead of to Brabant entrepreneurs. As was noted in Chapter 5, several Brabant linen merchants, among others from Den Bosch and Eindhoven, took up bleaching in Haarlem, accompanied by numerous migrant-weavers from the countryside, taking with them

[33] See also Hale, *War and Society*, 212.
[34] Adriaenssen, *Staatsvormend geweld*, 299-300.
[35] Trompetter, *Leven*, 42, 393. On the agrarian depression that set in around 1650, see Van Dillen, *Van Rijkdom*, 497; Bieleman, *Boeren*, 28, and footnote 23.
[36] Cf. Gutmann, *War and Rural Life*, 80.

the latest bleaching techniques and thus contributing significantly to the 'Golden Age' of that industry.[37]

In the midst of all Meierij's misery the rise of the proto-industry in Tilburg stands out. This village even experienced population growth during the Wars of Independence; by 1638 6,000 inhabitants were counted, which is comparable to towns like Deventer or Gorinchem. In the following Tilburg's rise is explained by separating out a number of crucial factors.

To begin with Tilburg's trump card was fine woolens and not linen cloth that was produced by most of the Meierij farms. The village of Oisterwijk produced wool too, like Tilburg, but its peasants used coarse materials and thus belonged to the 'old draperies', while Tilburg's looms (of a more recent date) joined the new draperies, the new trend in fashion, and utilized fine wool imported from England. From the start Tilburg's export markets were located in the north, in the expanding market of Holland, while the Oisterwijk cloth producers had been oriented to the south with a contracting market. Thus Oisterwijk's proto-industry declined, not only because of war atrocities, but also because war precipitated a downfall (old drapery cloth was increasingly difficult to sell) that was going on already. In addition Tilburg's production was not held back by possible obstacles imposed by guilds or cloth halls that dominated much of the textile trade elsewhere.[38]

A second factor is related to vulnerability in times of war. Oisterwijk was an urbanized village with a clear center. During an attack by angry foot or horse soldiers the wealth was easily located and found; one fire could easily set the whole village ablaze. In contrast Tilburg consisted of several spread-out hamlets and its production was distributed over small-scale workshops engaged in the teaseling, spinning, and weaving of wool. This spread the risks when attacked by mutineers or marauding soldiers. The village counted no merchants with large stocks and no entrepreneurs with expensive filling-mills or dye houses that could be pillaged and destroyed. The major merchants dealing in Tilburg cloth lived in nearby Breda, who supplied the peasants with the high quality wool from England and later from Spain.

The third factor had to do with advantageous pre-war economic developments. Prior to the war the village had witnessed an increased cattle trade, the oxen being fattened in the nearby Holland meadows of the Langstraat district. The fattening of oxen was stimulated by Holland's urbanization and generated a significant wealth for individual Tilburg farmers. This wealth stimulated trade and investments in other products, among others wool. But most

[37] Adriaenssen, *Staatsvormend geweld*, 313-316.
[38] Another proto-industrial village that experienced major growth was Geldrop; Adriaenssen, 'Hoe Tilburg', 16, 21-24, 28-30; Adriaenssen, *Staatsvormend geweld*, 254, 317-324, 335.

importantly the available capital stock diminished the vulnerability in war too. Tilburg managed time and again to obtain safeguards during the critical period of 1584-1588, and bought off the worst of hit-and-run and scorched earth campaigns. The village budget was carefully managed which permitted regular compensations for the local population in case of war losses or costs incurred because of ransoms, the lodging of soldiers, the supply of carts, and sentry duties. War was a burden, but it was bearable. Pioneers and wagoners earned wages that were conform to the market; some made it their trade such as Adriaen Symons van Oeckel who obtained almost 900 guilders from the Tilburg treasury for serving with wagons and horses at the sieges of Grave, Loon op Zand, Neuss, and elsewhere. In Tilburg labor was scarce because in demand of the wool trade, and the village preferred to hire labor to perform the demanded duties for the garrisons of the Spanish or Dutch troops. All those expenses caused the village war debt to grow, amounting to almost 24,000 guilders by the beginning of the Truce. But thanks to the available capital it was possible to find local creditors, such as Jan Cornelis Gerit Hermans van Heijst, a cloth merchant whose investments in village bonds totaled 3,580 guilders. The expenses incurred from interest payments thus served again largely the local community again, not some far away *rentenier* in Den Bosch or Antwerp, who were the creditors of most other Meierij villages with high war debts.[39] The conditions of Tilburg's favorable economic development thus show a remarkable resemblance to those of Holland.

In the early seventeenth century Tilburg continued to enjoy peculiar advantages which permitted the villagers to recuperate from temporary setbacks during nearby sieges. The finishing of the wool was performed in Holland and Amsterdam's interests in this trade resulted in the freedom of heavy *licent* duties for Tilburg's woolens in 1622. Leiden opposed this policy, fearing the competition of the cheap rural production, but the voice of Amsterdam's dyers and cloth merchants weighed simply heavier.[40]

During the 1630s the trade in fine woolens was transformed into mass-production; more and more powerful merchant-entrepreneurs (*reders*) controlled with their sub-contractors the process from raw materials up to the supply in foreign markets. Numerous smaller traders lost their independence, also in Tilburg, and a proletarization occurred with the disappearance of independent weavers who became now wage-bound for a number of big Tilburg and Holland merchants. This mass trade in woolen cloth was a new phenomenon and

[39] Adriaenssen, *Staatsvormend geweld*, 334. See also Chapter 5 for the Meierij village debts.
[40] Adriaenssen, 'Hoe Tilburg', 27; Adriaenssen, *Staatsvormend geweld*, 326-330. Another town that was allowed privileges in the customs was Maastricht; Steegen, *Kleinhandel*, 84.

was dominated by Amsterdam. Tilburg cloth ended up in Russia or South-America, often under the name of Leiden or Holland cloth. But for the Tilburg weavers this connection caused a strong and steady demand for their products, and after 1648 Tilburg was reckoned as the second largest textile center of the United Provinces, after Leiden.[41] Yet it should be remembered that this development had been dependent upon a peculiar set of advantages that were not easily copied by other villages in the Dutch Republic.

Dealers in Death: Provisioning the Army[42]

Yet wartime's economic opportunities also consisted of a quite direct linkage to local industries. Above all in the field of arms provisioning a strong commercialization of warfare was noticeable. New arms industries arose; during the Eighty Years' War the United Provinces even rose to the center of the international arms market. The English consul at Amsterdam, William Carr, noted the strong competitive position of the Dutch arms industry in 1688:

> It hath inconceivable store of all manner of provisions for war, insomuch, that England and divers other Nations send to Amsterdam to buy arms, buff-coats, belts, match, &tc. Yea, here are several shopkeepers who can deliver arms for four or five thousand men, and at a cheaper rate than can be got any where else […].[43]

Holland's strong trade networks provided necessary materials like saltpeter, sulphur, and iron plates. The weapon industry expressed in share of Dutch GNP has been estimated at no less than five per cent for the seventeenth century.[44]

At the start of the Dutch Wars of Independence the local arms industry was virtually non-existent. Liege, to the south of the Republic, was becoming an arms production center of fame, but supplied above all the Army of Flanders. But within two decades the number of workshops engaged in arms industry expanded in the northern Netherlands, fuelled on by the substantial and continuous demand of the army and navy. But also the numerous town

[41] Davids, *Rise*, 127; Adriaenssen, *Staatsvormend geweld*, 333, 336; Adriaenssen, 'Hoe Tilburg', 17, 31.
[42] Wilson, *Thirty Years' War*, 137, called the Dutch true 'dealers in death' because of their ability to deliver arms package deals.
[43] Quoted by De Jong, *Staat*, 14; see also Wilson, *Thirty Years' War*, 137.
[44] Vogel, 'Arms', 210; Klein, *Trippen*, 195; Davids, *Rise*, 146-149; on the calculation of the share of GNP see also Westera, 'Geschutsgieterij', 575. Poland exported saltpeter, but this stagnated in the later seventeenth century and Indian saltpeter (via the VOC) became more important; Anderson, *War*, 74.

soldiers, the urban militias, the fortifications, and the fishers and merchantmen who were instructed to arm themselves stimulated this industry.

The supply was channeled by the establishment of magazines. Orange erected the central magazine in Delft in 1573; the provincial governments followed in installing their own. These magazines bought gunpowder, bullets, guns, and so on, but also wagon parts, spades, and axes to be used in sieges. In 1574 Delft's magazine alone spent already 115,000 guilders; this sum rose to 600,000 guilders by the early seventeenth century.[45] In addition captains continued to buy weapons directly from workshops too, above all their edged weapons (pikes and swords).

The Mauritian *Ordres op de Waapeninghe* of 1596 and 1599 (see Chapter 3) constituted major drives towards standardization in the arms industry. The Delft magazine commissioners distributed at least 64 molds for standard muskets to the workshops throughout the Republic; in addition the repair of standard muskets instructed local artisans about the desired caliber. Within a time span of only five years the Dutch arms producers had grown accustomed to the new musket model of twelve bullets in the pound. Central control through the magazine stimulated further homogeneity, and standard models were designed for siege instruments like spades, pickaxes, shovels, sandbags, and gabions (wicker baskets to be filled with mud or sand), too. The magazines further prepared ready-made kits for field fortifications consisting of palisades, beams, and nails. To further standardization Maurice occupied himself with the development of a grenade, or in the design of a similar helve for all pickaxes and axes and another one to fit all spades and shovels.[46]

As a result a transparent market for arms arose. The fact that the soldiers received regular pay at least from the early 1590s onwards constituted a significant plus of the market since artisans were sure to receive their money. In the navy iron guns replaced the bronze ones since they were cheaper to produce. Maurice established a gun foundry in The Hague in 1589; other foundries arose in Utrecht and Deventer, and five more near the admiralty seats, thus in Amsterdam, Rotterdam, Middelburg, Leeuwarden, and Enkhuizen.[47] Following the standardization of cannon in 1611 (see Chapter 3) the States General prescribed the boards of admiralty only to order 24, 18, 12, and 6 iron pounders. The number of heavy cannon on board of Dutch warships rose rapidly after 1594, facilitated by the construction of larger

[45] De Jong, *Staat*, 35-38.
[46] Swart, *Krijgsvolk*, 68; De Jong, *Staat*, 29-30, 40-41, 49-50. On the advantages of standardization of arms, see McNeill, *Pursuit of Power*, 75, 140. Standardization in weaponry in the other early modern European armies was poor. Attempts in England in the 1620s and 1630s to arrive at standardization of weaponry came to nothing; see Fletcher, *County Community*, 175, 186-7, 200; some sort of standardization followed only in the 1660s.
[47] Adriaenssen, 'Amsterdamse geschutgieterij', 52 check.

warships; by the time of the Truce the level of armament had surpassed those on the English men-of-war.[48]

At the same time the export market exerted a significant demand, above all by France that had few arms producers of its own. These orders were facilitated and financed by the Dutch subsidies to that country. In April 1599 Van 's-Gravensande, the Delft storage-clerk, furnished straight away a complete set of arms and armor for fifteen French companies, including banners and drums. Soon the arms export gathered speed, spreading above all to the northern German harbors, the Baltic, Italy (above all Venice), and also England. The Thirty Years' War implied a major boost again and numerous arms were exported to the Protestant allies. During 1625-1629 Denmark was completely dependent for its arms upon the Amsterdam market. But Dutch arms were also exported to Russia, Morocco, the coast kingdoms in Guinea, and further also to South Africa, Asia, the North American Indians and the colonies in the West. Exports to the enemy were not allowed, but Dutch weapons reached the Spanish troops via French harbors, and during the Anglo-Dutch wars Amsterdam merchants exported gunpowder to Hamburg, well knowing that it would be re-exported to the English again. In preparation of their 1672 invasion the French bought their gunpowder and bullets on the Amsterdam market too.[49] Thus this branch of industry also profited from the arms that adversaries used to bring them down.

Artisans in the arms industry further received active support from Dutch authorities. Gun founders in The Hague, Rotterdam and Enkhuizen obtained a building for their workshop, housing, equipment, and an annual salary of 200 guilders. This eased the establishment of new industries and mitigated the effects of foreign competition. The States-Provincial of Holland and the East India Company bought saltpeter to furnish gunpowder mills in Amsterdam, Delft, Rotterdam, Brill, Flushing, and Hoorn, in return for a future order of a certain amount of gunpowder. More and more gunpowder was manufactured in the Netherlands itself, increasingly in larger horse-powered or windmill-powered workshops that replaced the one-man firms. Likewise in the gun foundry the entrepreneurs received copper and tin in return for the delivery of a certain number of cannon to the navy, the army or the colonial companies. Urban governments supported the arms business further by appointing inspectors to supervise the saltpeter trade. All major transactions were registered at notaries; trade disputes were settled at urban courts with appeal possibilities of the urban governments

[48] Westera, 'Geschutsgieterij', 578, 588; Sicking, 'Naval warfare', 252; Cipolla, *Guns*, 49; De Jong, *Staat*, 75-78, 83, 142. Since the 1640s the English men-of-war were again usually better armed than the Dutch.
[49] Vogel, 'Arms', 202-209; De Jong, *Staat*, 38, 49, 158-160, 174. Jones, *Anglo-Dutch Wars*, 68.

or by ad-hoc committees with members accepted by both parties. Such institutions significantly lowered the risks in arms trade and production.[50]

Partly thanks to support of the authorities the number of workshops multiplied; since capital and skilled labor was found above all in Holland, it was there that the arms industry concentrated. Specialization advanced. Since 1602 for example the forks for the muskets were made by the gun makers Jan van Kempen and Daniel van Marle in Dordrecht. Numerous artisans in Gouda focused on the production of matches; bronze guns came usually from The Hague; and Utrecht workshops specialized above all in armor and grenades. Artisans increasingly assembled parts such as barrels, locks, rifle butts, and brass rings into guns; sword blades and pike heads became edged weapons; craftsmen put armor parts together into complete sets of armor. The parts came from workshops from all over the United Provinces or were imported from other countries. The magazines also collected broken and worn-out arms for the repair of others and saved money in this way. In all these developments speeded up production and provisioning. As a result the Dutch army and navy rarely suffered from shortages of arms and ammunition.[51]

Spurred on by these favorable developments several entrepreneurs engaged in innovative management. Middlemen (themselves arms producers or arms dealers) took on the task of engaging small workshops; thus Aert Meynaes, speaking for the Dordrecht arms makers, agreed to deliver 500 muskets at 9 guilders a piece to the magazine in Delft. Some merchants intermediated for foreign powers, selling and hiring admiralty vessels to Venice for example. Others bought booty vessels from privateers and recouped these costs directly from deliveries in gunpowder from the admiralty boards. But most far-reaching were the innovations in the field of package deals. Merchants specializing in such package deals intermediated between arms producers, the markets for raw materials, and the markets for exports. Thus in 1622 Count Christian of Brunswick was delivered all of the equipment for his 7,000 army in one go, ranging from arms and armor to shovels and axes.[52]

The short links between merchants, magazines, admiralties, and the colonial companies facilitated such package deals. Above all Amsterdam constituted a hub as a major

[50] Westera, 'Geschutsgieterij', 591;.Davids, *Rise*, 147; De Jong, *Staat*, 48-49, 143, 286-287, 293. In comparison, both in the Spanish Netherlands and in Spain gunpowder was manufactured in a monopoly, which precluded economic gains by private entrepreneurs, see Clark, *War*, 61; Thompson, 'Money', 289. On the importance of the lowering of transaction costs for economic growth: North, 'Transaction Costs'.
[51] Vogel, 'Arms', 198; Enthoven, *Zeeland*, 224; Cipolla, *Guns*, 56-62; Davids, *Rise*, 147, 237; De Jong, *Staat*, 46-49, 122. France, in contrast, suffered from a inadequate provisioning in this respect, see Parrott, *Richelieu's Army*, 67. Also the army and the militias in Spain suffered recurrently from limited supplies of arms, gunpowder and shot, see White, 'Experience', 10-13.
[52] Klein, *Trippen*, 208; De Jong, *Staat*, 170-1; Vogel, 'Arms', 200-201, 205.

spender for army, navy, and the colonial companies, with the presence of an increasing number of arms manufacturers in the town itself.[53] Its market yielded always excellent information as to prices, products, and suppliers, which resulted in a significant decline of the transaction costs. Because of their diverse and manifold connections several Dutch arms exporters developed into a kind of generalist army purveyors for foreign powers, providing arms and ammunition but also taking care of the transfer of subsidies and loans. This was a profitable business; in 1622 the consortium of Philippo Calandrini and Andries van der Meulen earned for example 18,750 guilders in a single transaction between Venice and Amsterdam.[54]

The most powerful of the arms merchants were in a position to borrow stocks of the admiralty for their own purposes, such as Elias Trip who asked for weapons for his expedition to Guinea in 1615, which he obtained in return for the promise to bring the admiralty saltpeter from West-Africa. In 1624 Louis de Geer who held excellent connections to the Swedish copper and iron mines established an arms trading company with the Trip brothers; the capital was 72,000 guilders in 1624 but increased to 400,000 only two years later. Increasingly the market could employ the government stockpiles in the magazines of the Dutch state as an export reserve; the magazins provided the merchants with arms and ammunition that was not needed at the time for the army or navy. This relieved the arms exporters of the need to maintain large stores of their own and offers an excellent example of the interplay between private capital and public institutions in the Dutch Republic.[55]

Innovative management was less obvious in other fields of army provisioning. The garrisons exerted a strong consumer demand, as was shown in Chapter 4, but uniform clothing and large-scale suppliers of package goods still belonged to the future. Local artisans like tailors, bakers, and shoemakers took care of most of the provisioning, next to army victuallers (sutlers) that followed the army in its train. Attempts to regulate these assignments on a larger scale met with substantial difficulties. In the 1580s the office of the s*uperintendent-generaal van de vivres* was discontinued because of the complicated character of his assignments; he had had to regulate the transportation of the troops on campaign, to buy rye, barley, oats, flour, fish and cheese for them, and to deal with all kind of money transactions at the same time.[56]

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[53] Adriaenssen, 'Amsterdamse geschutgieterij', 44-89.
[54] Glete, *War and the State*, 172; De Jong, *Staat*, 240-247, 279-281, 332-334.
[55] Klein, *Trippen*, 247; De Jong, *Staat*, 45-48, 87-90, 148-149, 172.
[56] Swart, *Krijgsvolk*, 51. On the role of women among the victuallers in the Thirty Years' War, see also Wilson, 'German Women'.

The position of army victuallers (sometimes soldiers' wives, or soldiers themselves) stood under command of the quartermasters. In 1593 Maurice ordered that each company was to have no more than one (soldier-)victualler. They enjoyed certain privileges, such as freedom of taxes; compensation was possible in case the sutler's ship or wagon had suffered war-related damage. Army officers were not permitted to combine their post with that of a victualler. Clerks of the Council of State were assigned specific tasks, such as to keep sufficient stores in particular magazines or to buy grain or hay in advance.[57]

Chapter 3 described how the Dutch were overtaken by the French with their magazine system of Le Tellier. Following the attacks in 1672 William III of Orange installed a *proveditеur-generaal* to keep the French at bay, who was to supply bread to all soldiers in the field army. Other large-scale contracts were signed with suppliers of wagons or horse fodder.[58] Contrary to the *superintendent-generaal* of the late sixteenth century these *proveditеurs* received contracts for one specific item only. It was a move which drew rich entrepreneurs more and more into the army organization.

One of the firms in this respect came to stand out: the Machado-Pereira combination. Antonio Alvares Machado, a merchant from Portuguese-Jewish descent, started his career as bread supplier in 1673, when Stadtholder William III had contracted him to deliver bread and cheese to the garrison of Den Bosch. The next year Machado supplied hundred wagons for the transportation of bread, grain, and flour. In 1676 he was assigned the task to supply the rye-magazines for the army, a contract that was renewed regularly for decades. Machado and his associate Jacob Pereira (also from Portuguese-Jewish descent) bought grain in massive amounts on the Holland markets, took care that they were ground, baked to bread, and transported to the troops.[59]

Following the strong judicial traditions of Holland such contracts were quite elaborately worded. They did not only state the duties and tasks of the suppliers but also reduced their risks. The *proveditеurs* were exempted from all kind of taxes, be it customs or excises on the milling of grain. In case the suppliers had difficulties to find room for storage the local authorities had the duty to requisition the available locations for them. Local authorities also had to support the transportation and the handling of the army grain, flour, or bread. Escorts were to be hired at reasonable prices. In case goods were stolen or destructed

[57] De Graaf, *Oorlog*, 200, 209, 354-355; Aitzema *Notable revolutions*, 470.
[58] Schulten and Schulten, *Leger*, 86; Van Nimwegen, *Subsistentie*, 24; Ten Raa/Bas, *Het Staatsche Leger VI Ibidem* 13, 28, 42.
[59] Van Nimwegen, *Subsistentie*, 26-28; Ten Raa/Bas, *Het Staatsche Leger VI*, 28, 42, 51, 54. William III held excellent relations with Sephardic Jews, a wealthy group of investors that permitted him to circumvent the influence of Amsterdam's oligarchy.

by the enemy, the Council of State was to recompense the losses. In order to be able to buy the grain in time the Council of State also provided loans at low interest rates to the *provediteurs*.[60]

Significantly the bread-provisioning contracts were never promised beforehand to the Machado-Pereira combination. Each year they had to compete with other possible suppliers, with the effect that they had to take care that their prices were not unfounded and their profits not unreasonable. But prices were not the only consideration: the reliability of the suppliers mattered too. The Machado-Pereira firm managed to build up a strong network, with magazines and bakers, which increased the likelihood for them to obtain the contract time and again. Such circumstances facilitated the rise of large-scale capitalist enterprises that also developed new managerial skills and standardized output. The revenues could be considerable; a foraging contract in 1703 which involved a total of 1.6 million guilders yielded Machado a net profit of almost 200,000 guilders.[61] Yet these mega-suppliers for wagons, bread, and forage only appeared in the last decades of the seventeenth century, while merchants in the arms trade had practiced scale increases and package deals for decades already.[62]

All those large-scale suppliers profited from the strength and continuity of transparent and reliable contracts. This was an outstanding feature for most of seventeenth century Europe. In Spain all larger military contractors were disgraced or bankrupted after some time. The French monarchy was known for paying its bills always late, if at all; this weakened the position of indegenous army suppliers significantly.[63] After 1650, with the coming of shorter wars and the rise of competing industries in other countries, the Dutch arms exports ceased to expand. But even then the United Provinces remained a major supplier of arms and thus continued to profit from warfare in general.[64]

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[60] Van Nimwegen, *Subsistentie*, 29, 52-55, 63.
[61] Van Nimwegen, *Substitentie*, 128, 354.
[62] Despite the growing home manufacture the Dutch remained a major importer of arms; much of the weapons were re-exported again. For their supply the Dutch became less dependent upon Suhl, Solingen, and Liege, regions with vulnerable lines of supply along Meuse and Rhine; instead Sweden and India (Coromandel Coast) became more important. The workshops in Suhl and Solingen were hampered by guild regulations that specified, among others, that they should sell their products only to a local merchant, and the number of arms produced per workshop was limited too; see Clark, *War*, 62; De Jong, *Staat*, 218, 252.
[63] Thompson, *War and Society*, III:270; Lynn, *Giant*, 182-183; Parrott, *Richelieu's Army*, 389-390. Milan and Venice however were examples of great profitability in arms industry, comparable to the Dutch, see Caferro, 'Warfare and Economy', 198.
[64] Davids, *Rise*, 148; Anderson, *War*, 150.

Conclusion: Wartime Protection of Capital Accumulation

The impact of war on the economy varied strongly in the northern Netherlands. This depended not only upon the nature of the devastation but perhaps even more upon the economic structure and pre-war and post-war economic trends, and on the resilience of the social and political institutions. It was important that the country was already commercialized by the start of the war. Holland contained some 40 per cent of the population, but a much greater proportion of its wealth. Above all Amsterdam prospered. Its seafaring commerce regained quickly in the 1580s, fueled on by a powerful mix of immigrant skills and wealth, and existing advantages, links and traditions.

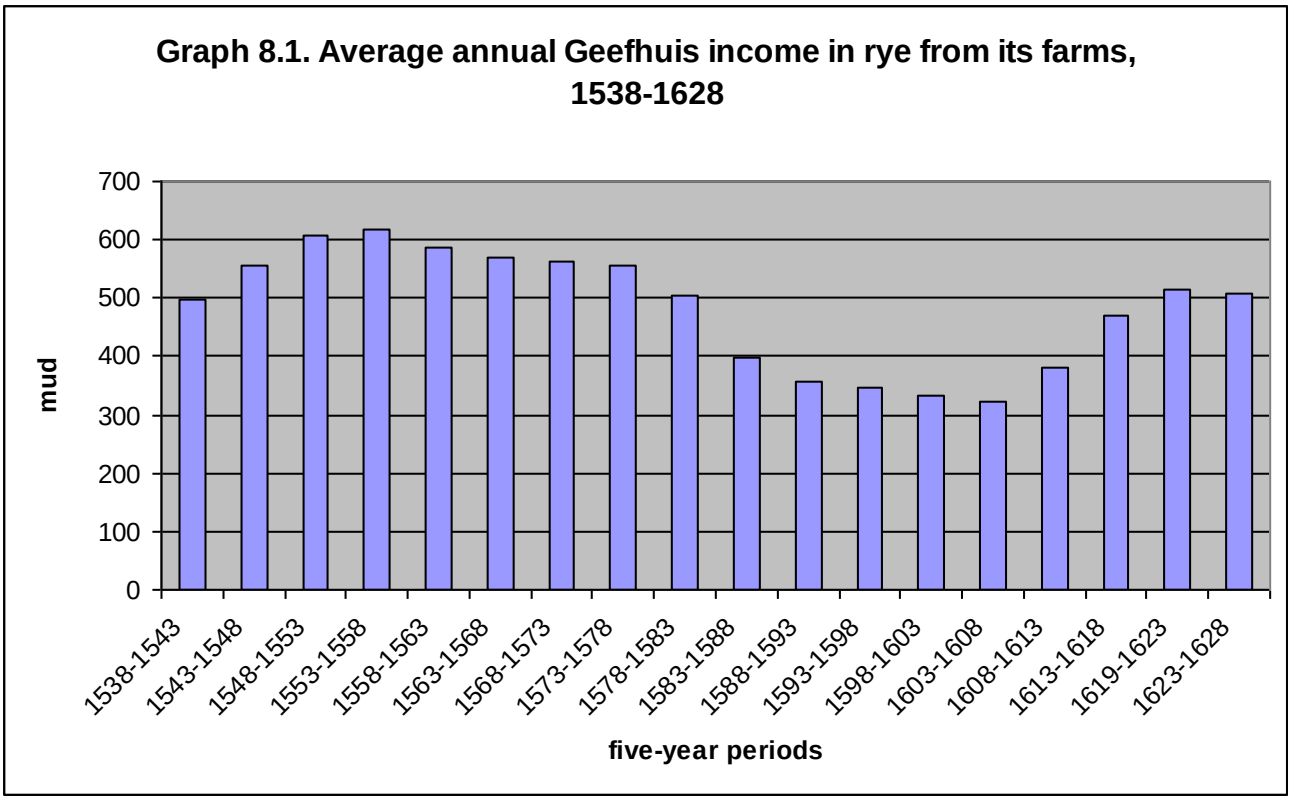
Holland's exceptional rates of ongoing growth were realized partly at the expense of contraction in the inner provinces. Indeed, the example of Tilburg showed that for the communities inland only a strong orientation on Holland's networks assured economic growth during adverse wartime conditions. But even then war did often only strengthen and accelerate trends that were already there; in the end Tilburg would probably have expanded and Deventer would have lost its dominant position anyway, but just at a lower pace.

The economic growth in Holland's urbanized core was remarkable, based upon a political structure that favored the interests of the merchant and entrepreneurial classes. This ensured a safe environment for continuous capital accumulation. Typical for the Dutch economic development was its decentralized structure, allowing for flexibility, pragmatism, and local expertise. The provincial and local authorities supported a great variety of economic sectors, and not least in the arms industry. Standardization of war equipment furthered the rise of the arms market and stimulated innovations in management. But compared to France or Spain, the Dutch were rather late in realizing large-scale bread or rye supplies. Such firms only arose in the 1670s, spurred on above all by the war with France.

Wartime-stimulation of certain economic branches were not unknown in Europe, compare the earlier mentioned examples of Sweden and Frýdlant. But the difference with Frýdlant was the degree of continuity; after the booming 1620s the catastrophe of the 1630s arrived, which was directly related to the rise and fall of Wallenstein himself. Indeed, not only the profitability of war demand counted; also the continuity of the social-political setting constituted a vital factor. Almost everywhere in Europe war-time suppliers gained enormous profits, yet the trick was to be able to continue in this line of business.

The capital accumulated in the first phase of growth, 1585-1621, contributed to the steep decline of interest rates thereafter.[65] Wartime shifts in economic opportunities towards Holland supported this tendency. 'Because Holland prospered, its citizens and inhabitants had more to give in taxes and loans', remarked James Tracy.[66] The sound system of Holland-centered public finance (Chapter 7) rendered the Dutch state, its army and navy, a reliable customer, and was bolstered in turn by economic expansion up to the 1670s. The protection of capital accumulation, even during wartime, was of primordial importance for a continuous profitability of the army and navy suppliers. At the same time society was not burdened with unruly soldiers that threatened existing property rights. The "turn to the sea" instead of remaining oriented on Antwerp's long-distance connections over land proved advantageous for the Dutch; it enlarged significantly the area from which to draw resources and permitted them to profit from the rise in overseas trade in general. Such considerations are crucial in the explanation of why and how the Dutch could wage such long and costly wars while maintaining a strong civilian control over the military and supporting the high degree of professionalization among the soldiers.

[65] Cf De Jong 23; Klein, 'De Nederlandse handelspolitiek', 189-212.
[66] Tracy, *Founding*, 295.


Graph 8.1. Average annual Geefhuis income in rye from its farms, 1538-1628
mud
700
600
500
400
300
200
100
0
1538-1543
1543-1548
1548-1553
1553-1558
1558-1563
1563-1568
1568-1573
1573-1578
1578-1583
1583-1588
1588-1593
1593-1598
1598-1603
1603-1608
1608-1613
1613-1618
1619-1623
1623-1628
five-year periods