

Chapter 5

State of Cities, Commercial Trust, or Virtual Organisation? – Structure and Coordination of the Hanse

The Paradoxical Outward Appearance of the Hanse

The Hanse is probably one of the most dazzling phenomena in the economic as well as in the political history of the Middle Ages. The mere economic facts are quite impressive. From the thirteenth to the early sixteenth centuries the Hansards, who were mostly, as we have seen in the chapters so far, self-employed merchants, could deliver all sorts of goods to the consumers in the ever growing cities all over the Baltic. Merchants also acted as a coordinated group and together defended – with great success – the Hanseatic trade privileges they had once obtained in London, Bruges, Bergen and Novgorod, the places where they founded trading outposts, known as the *Kontore* of the Hanse.²⁴⁵ Despite the fact that they neither formed large firms nor really adopted state-of-the-art trading techniques, both features that we have discussed at great length in the previous chapters of this book, the merchants were able to maintain their quasi-monopoly of trade on Baltic markets until the turn of the sixteenth century.

The Hanse's outward appearance has nevertheless been shaped until today by the Hanseatic League, a rather loose alliance of towns that became visible around the mid-fourteenth century as a more or less formal entity although there are good reasons to assume that it had emerged earlier. The Hanseatic League appears as a kind of omnipotent political superstructure of the Hanse, which in fact it never was. And the focus which historians placed on the Hanseatic League is one of the reasons why the Hanse was for a long time discussed in historiography and neighbouring disciplines as a predominantly political rather than an economic phenomenon. The publications of Nicolas ESCHACH and Jefferey M. SCHELLERS are newer

245 Cf. SELZER 2010, pp. 52–58.

examples of an analysis of the Hanseatic League with respect to its status as an alliance of cities with primarily political purposes.²⁴⁶ Yet, given this somewhat biased interpretation²⁴⁷, the Hanse seems to have been a state of cities and a huge mercantile empire at the same time, a sort of late medieval North European super trust.

Unfortunately, not much of this quite fascinating tale is true. It is particularly the organisational part of the story that raises questions instead of providing answers. This can be seen in some very well-known episodes from the late fifteenth and the early sixteenth century. While attempting to prolong the trade privileges of the Hanse in 1469, the representatives of the Hanseatic *Kontor* in Bruges prepared a list of the towns belonging to the Hanse, comprising 72 town names, but also noted that towns not actually included in the list could of course be members of the Hanse as well. In 1507, even the French king Louis XII wrote to the 72 cities of the Hanse, but this number of cities possessed more of a symbolic significance than a practical value.²⁴⁸

These episodes point to several aspects concerning the structure, function and meaning of the Hanse: first of all, as names of towns were recorded, the Hanse is certainly a very good example of late medieval trade being strongly connected with towns. This pattern is observed across Europe during the so-called ‘Commercial Revolution of the Middle Ages’.²⁴⁹ In Northwestern Europe, the model of the medieval European town as a permanent and legally protected market emerged during the eleventh and twelfth centuries and spread rather quickly in the Baltic region thereafter. In fact, the two foundations of Lübeck – one in 1143 by Count Adolf II of Holsatia, and again in 1158/9 by Duke Henry the Lion – can be considered a milestone in this process. Secondly, the merchants of the Hanse who dominated the commerce in Northern Europe during the thirteenth to fifteenth centuries acted primarily as members of their respective home

246 Cf. SCHELLERS 2003; ESCHACH 2010.

247 Cf. for an overview of the changing interpretations of the Hanse in the historiography of the nineteenth and twentieth centuries SELZER / EWERT 2005, pp. 8–18 and Chapter 1 in this volume. See on the Hanse in general HAMMEL-KIESOW 2000; DOLLINGER ⁶2012; JAHNKE 2014.

248 Cf. DOLLINGER ⁶2012, p. 109 f.

249 Cf. LOPEZ 1971.

towns and were clearly recognised as such. This notwithstanding, they also cooperated beyond the legal boundaries of their home towns. This cooperative and coordinated behaviour of Hanseatic merchants was presumably an important determinant of their economic success. After all, a town became part of the Hanse in a broader sense, because some of its merchants were among those who shared the Hanse's trade privileges in Bruges, London or Novgorod, and not the other way round, because of the town's eventual cooperation with other Hanse towns.²⁵⁰ In economic terms, the Hansards formed a cartel, which in turn allowed them to enjoy a quasi-monopoly of trade in the Baltic. To some extent, this behaviour was quite different from the Mediterranean situation, e.g. in Venice or Genoa, where merchants traded in fierce competition on the legal grounds of their home towns. Thirdly, even against the background of the above-mentioned list of alleged member towns of the Hanse observers in the fifteenth century still had rather imprecise and vague ideas of what the German Hanse exactly was. Nevertheless, both the economic and the political importance of the Hanse, whatever it may have been, was a well-known and acknowledged fact in the political scene of Northwestern Europe in the late Middle Ages.

Thus, historical research on the Hanse is in a sense governed by a threefold paradox: on the one hand, most of the newer publications deal with the social history of the Hanse, although the Hanse is first of all an economic historical issue. On the other hand, even if the economic character of the Hanse is acknowledged and becomes the primary subject of analysis, very often a cultural history approach is taken, and as consequence the Hanse is seldom analysed from an economist's perspective and by using economic theory.²⁵¹ Lastly, the different elements of the Hanse such as the *Kontore*, the diets of the Hanseatic League, which often took place in Lübeck, or the quite unique reciprocal trade pattern of Hanseatic merchants are very often studied as isolated cases. Hardly any attempt is made to combine all of these different pieces. Avner GREIF, Paul MILGROM

250 Cf. SELZER 2010, p. 58.

251 There are of course exceptions to this rule, namely SCHONEWILLE 1998; STREB 2004; JENKS 2005; LINK / KAPFENBERGER 2005.

and Barry R. WEINGAST²⁵², for example, gave of course a pathbreaking and theoretically sound explanation of the Hanseatic guild formation at the *Kontore*, using the example of the Hansards trading at the Bruges market, but the Hanse cannot be reduced to its commercial outlets alone, especially not in the case of the Bruges *Kontor*, simply because this commercial outlet was in many respects different to the other outposts. Thus, we will attempt an institutional analysis of the Hanseatic trade system and its political spin-offs, an analysis that is based on the fairly safe grounds of economic theory. In particular, this analysis shall reveal the interplay of different Hanseatic institutions. Within the sections of this chapter we intend to focus on two points: first of all, it shall be asked, which theoretical concept would be suitable for a description of the organisation of the Hanse? And secondly, the question arises of how this rather complex system was coordinated, enabling Hansards to get their economic interests accepted and to retain their quasi-monopoly in the Baltic, at least until the late fifteenth century. Given its seemingly vague structure, it is quite astonishing that the Hanse was not only capable of defining rules regarding the trade of its merchants, but could also enforce these rules, although not always successfully. Why was this possible? How did the Hanse solve this problem? We attempt to explain the relative stability of the Hanseatic cartel over the period of roughly 200 years as a result of the Hansards solving several emerging problems of cooperation. Our aim with this chapter is therefore to discuss these questions and hopefully to ascertain some general considerations concerning the issue. The focus lies more on the enhancement of cooperation rather than on the definition of rules. We also claim that in this process, conflict with existing rights had a catalytic function for a clearer definition of both the internal structure of the Hanse and its developing strategic interests.

252 Cf. GREIF / MILGROM / WEINGAST 1994.

Structure of the Hanse

A Theoretical Concept – the Network Approach and Virtual Organisations

First of all, we will present a theoretical concept able to describe the Hanse as a system of trade and also as a political organisation. With this concept it will be possible to explain the Hanse's structure in economic terms. In Chapter 3 we already pointed to fact that, similarly to the terms 'system' and 'social capital', the term 'network' is very popular indeed and its exact meaning seems to be well-known. As in the case of the two other terms, 'network' is also widely used in social sciences and in history, and a broad range of meanings is attributed to the theoretical concept underlying the term. For the purpose of being as precise as possible, 'network' is here used with respect to its meaning in management science, that is, describing a specific form of organisation.²⁵³

A network organisation is thus defined as a loose cooperation of legally and economically independent entities. Through 'networking' a 'new' structure evolves which constitutes the framework for potential cooperation between the members of such an inter-organisational network. In theory, this 'new' structure – the inter-organisational network – neither possesses hierarchical levels nor is it controlled from a headquarters, because cooperation between network members is thought of as a voluntary and flexible coupling.²⁵⁴ Network organisations are therefore characterised by a low degree of formalism and a lateral flow of information. Since coordination within such an organisational pattern in principle cannot be achieved by either hierarchical means of coordination or third-party enforcements, cooperation has to be guaranteed by mutual trust and reputation.²⁵⁵ A spin-off of having only loose couplings is that network members can be simultaneously involved in both cooperation and competition. This feature of 'cooptition', underlining the flexibility of existing couplings, is

253 Cf. POWELL 1990; NOHRIA / ECCLES (eds.) 1992; GALASKIEWICZ 1996; THOMPSON 2003.

254 Cf. POWELL 1990; ILLINITCH / D'AVENI / LEVIN 1996; OSBORN / HAGEDOORN 1997; WINDELER 2001.

255 Cf. POWELL 1990, GALASKIEWICZ 1996 and OSBORN / HAGEDOORN 1997.

believed to increase the network's overall performance through internal competition.²⁵⁶

If a network organisation has the additional characteristic of being only virtually existent, it is called a virtual organisation. With this specific pattern the lack of a formally and well-defined hierarchical-bureaucratic structure can be hidden to the environment. From an outside perspective such a virtual organisation appears to be structured like a huge and complex trust, and features like formalism and complexity are only imitated with this structure. Nevertheless, the performance of a virtual organisation and the services it is able to deliver are equivalent to those provided by a highly formalised hierarchical-bureaucratic organisation. Information processing and the structure of the flow of information play key roles in the ability of virtual organisations to perform in this manner. The lateral flow of information requires devices that are capable of processing vast amounts of information very quickly in order to substitute the hierarchy that is missing. Thus, the model of virtual organisation is a special case of the network organisation.²⁵⁷

The Hanse's Network Trade and its Virtual Character

The theoretical concepts of network organisation and virtual organisation can easily be applied to the commercial relationships that existed between Hanseatic merchants in the late Middle Ages and that formed the Hanse as a whole. In Chapter 2 of this volume, we showed in great detail that this kind of structure fits very well to the pattern of internal Hanseatic trade, with its predominant lack of formal contracts and its obvious coordination by reputation, trust and culture.

Just to remember: a hierarchical-bureaucratic corporate organisation, which was already a common pattern used by Italian merchant bankers and trading businesses from Upper Germany²⁵⁸, can rarely be found along the coasts of the Baltic Sea. In contrast, in order to handle their trading operations by employing agents who had to be instructed on a

256 Cf. BECK 1998. See also Chapter 2 above.

257 See for an introduction to this concept SCHOLZ 1996 and KRAUT et al. 1999.

258 Cf. BAUER 1923; VON STROMER 1968; RIEBARTSCH 1987; HILDEBRANDT 1996; 1997

regular basis, the organisational mode of the Hanseatic businesses typically consisted of mutual transactions between two partners residing at distant locations, with each partner selling the other's goods. This type of cooperation was not exclusive and did not need formal contracting, and the selling merchant was usually not paid for taking the commercial risk of a sale.

The organisational pattern that had evolved through the trading activities of Hanseatic merchants is rather typical for a network organisation.²⁵⁹ Small-scale businesses of self-employed merchants, who were legally independent and had little financial power alone, formed trading networks by mutually cooperating via reciprocal trade. The bilateral exchange between members of these networks was not only based on an informal consensus separate from the organisational units of the *Kontore*, where the joint use of the Hanseatic trade privileges was overseen, but the headquarters capable of coordinating and controlling the activities of the numerous network participants were virtually not existent. Moreover, as network members could trade with as many partners as they wished all over the Baltic, the network structure in principle was characterised by both cooperation of its members and occasional competition between them. The evolving networks of trade appear to have been a so-called 'small world', since, despite their weak overall density, these networks allowed each member to get in contact with any other participant via only a few mediating persons.²⁶⁰ The Hanse therefore was clearly a network organisation in a commercial sense, but it was also based on social networks, because merchants relied on family networks to operate their trade across the vast geographical extent of Northern Europe, and because even the political institutions of the Hanse, town councils or the diets of the Hanseatic League, were to a great extent shaped by kinship bonds.

Moreover, the particular structure of trade inside the Hanse that originated from the multiple trading relationships of single merchants displays to a considerable degree the characteristics of a virtual organisation. This 'virtualisation' of structure is obvious in at least two respects: firstly, the Hanse possessed well-defined boundaries insofar as it was always possible

259 Cf. SELZER / EWERT 2001; 2005; 2010; EWERT / SELZER 2007; 2010.

260 Cf. WATTS 1999.

to distinguish between the Hansards on the one hand, who all shared the Hanseatic trade privileges, and non-Hanseatic traders on the other, who were excluded from sharing these privileges. Likewise, inside the Hanse a clear distinction between Hanseatic and non-Hanseatic merchants existed by the definition of the towns' trading rights for guests. However, what was really going on behind this shiny façade was not clear to outsiders, of course, and it was presumably unclear to many insiders as well. Although all sorts of goods were carried to every market in the catchment area of the Hanse by chains of commercial transactions involving many merchants²⁶¹, and although a high and homogeneous product quality was guaranteed by a standardisation of weights and measures²⁶², for single merchants as well as for customers these efforts certainly did not appear as if they could have been achieved without implementing complex formal structures. Secondly, the Hanseatic League²⁶³ as a rather loose alliance of cities and towns that had emerged by the middle of the fourteenth century still shapes the Hanse's present-day outward appearance. Although the Hanseatic League never really had a headquarters' function for Hanseatic trade, contemporary foreign merchants recognised their Hanseatic competitors as belonging to a group sharing privileges they themselves would have liked to share.

So, the Hanse can definitely be termed virtual, because its organisation constantly changed its outward appearance, in a sense that it always was recognised by outsiders as a juridical and economic entity, making outsiders sometimes even believe that it possessed well-defined structures and a hierarchy. The Hanse, however, was neither a 'state of cities' nor was it a huge commercial trust. The above-cited episode of Hansards producing a list of towns being members of the Hanse but saying at the same time, that this list might be incomplete, shows vividly that even contemporaries often struggled to understand what exactly the Hanse was. Likewise, for many generations of historians, the Hanse had the image of a huge commercial trust or a mercantile empire, a false interpretation to which even nowadays observers still are sticking to. The book by Angelo PICHIERRI, which ap-

261 Cf. HAMMEL-KIESOW 2000.

262 Cf. JENKS 2005.

263 Cf. WERNICKE 1983; HENN 1984; PITZ 2001.

peared in the year 2000, maintains this notion of the Hanse being a state of cities.²⁶⁴ Nevertheless, believing this, even if it is not adequate, points very much to the feature of virtuality, and a quite evident conclusion would be that the Hanse very successfully misled other merchants and continues to mislead historians by pretending to be a formally well-defined trust rather than really being one.

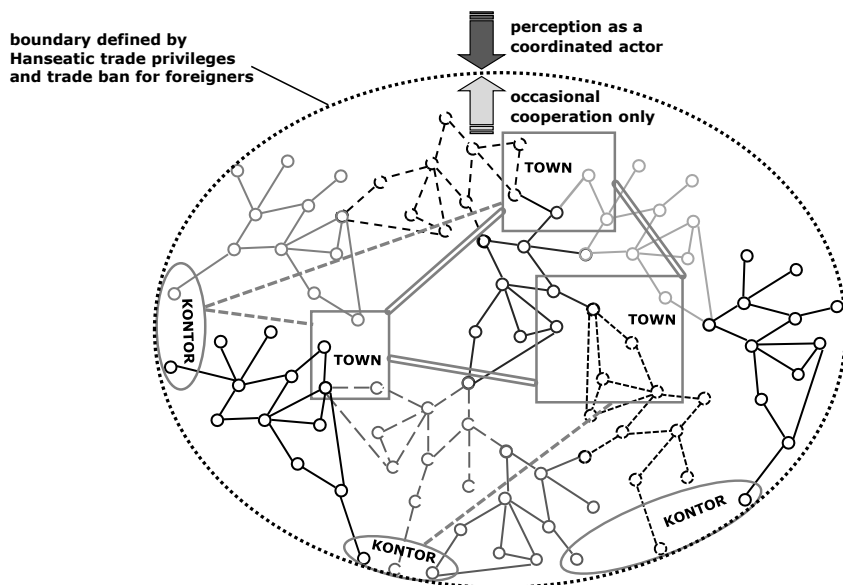
The Organisational Multiplexity of the Hanse

Much of the problem the Hanse had in developing strategic interests, defining rules and enhancing the cooperation of its members becomes clear when taking into account its rather complex structure. Simply by glancing at a map one can see the geographic dispersion of Hanse members and the huge spatial dimensions that were covered by the trade of Hanseatic merchants. The sheer number of potential members alone and the long distance that had to be bridged for the transmission of information should have been severe obstacles to any kind of cooperation. Apart from geographic dispersion, a second potential barrier to cooperation arose from the fact that different actors within the Hanse have to be distinguished with respect to economic claims and political decision-making. These actors are the peripheral commercial outlets (*Kontore*), the towns and finally of course the Hanseatic League as a seemingly formally well-defined kind of superstructure of the Hanse. A schematic of the structure of the Hanse formed out of these distinct organisational layers is depicted in Figure 5.1.

Organisation theory is a quite helpful tool, inasmuch as the actors of the Hanse and their attempts to structure and stabilise the Hanseatic cartel can be put into a more general framework of cooperation and coordination. In terms of organisation theory, the late medieval Hanse can not only be described as a virtual network organisation, it was also a multipolar organisation. Its multipolarity arose from the fact that decisions concerning economic and political action were made by several actors – the *Kontore*, the towns and the Hanseatic League. Multipolarity was also a result of how the Hanse had historically emerged.

264 Cf. PICHIERRI 2000.

Figure 5.1: Organisational Layers of the Hanse



Schematic of the structure of the Hanse formed out of the different organisational layers of Hanseatic merchants, networks of merchants, towns and cities of the Hanse and the *Kontore*.

Source: Authors' own drawing.

In the beginning, groups of merchants obtained trade privileges in the North Sea and in the Baltic Sea. In sharing these privileges, the merchants then founded trading posts, but they also began to influence the politics of their respective home towns, even more so after many of them had become sedentary and could afford to spend more time on political affairs. Finally, the towns, in which the councils were often dominated by sedentary merchants and which were then represented by councillors with strong commercial interests, decided to cooperate on a case-by-case basis in order to enhance these primarily economic interests. Thus, over a longer period of time several organisational layers emerged, which in the end coexisted and formed a non-central organisation. At three points within this multipolar organisation at least, personal bonds between the Hansards came into play through personal contact on a more or less regular basis: at the *Kontore*, where

some of them shared the Hanseatic trade privileges, in the towns, where some of them were members of the council, and at the diets of the Hanse, in which some participated as representatives of their respective towns. For the benefit of the Hanse, these organisational layers, which in part were interwoven through personal bonds, also had to interact with each other.

Problems of Coordination and Institutions to Enhance Cooperation

The First-order Problem of Coordination

Knowing that in theory cartels are thought of as being notoriously instable, the sustained cartel-like behaviour of Hanseatic merchants may surprise to some extent. It points to several basic questions regarding the cooperation within institutional settings that are characterised by incompletely specified property rights, weak legal means and conflicting claims of actors. The tendency of cartels to become instable is generally known as the ‘first-order-problem of cooperation’.²⁶⁵ How could the Hanse, a multipolar network organisation, solve this particular problem? How could this kind of organisation with all its shortcomings nevertheless ensure that its merchants cooperated not only repeatedly, but also in a coordinated manner?

The first-order-problem of cooperation applies to the merchants’ behaviour at the trading outposts (*Kontore*) of the Hanse, namely at Novgorod, Bruges, London and Bergen. Several cases from the history of the Hanse’s *Kontor* in Bruges show that the Hansards were well able to defend their trade privileges as a group. Following a dispute with the city of Bruges over several violations of the Hanseatic trade privilege, in 1280 the Hansards moved the *Kontor* to the nearby town of Aardenburg in Flanders. They even found allies to make their threat more credible, merchants from Spain who were also not satisfied with the actual conditions of trade in the city, and also the count of Flanders himself made use of the conflict for his personal political interests, namely to regain power over Bruges. The negative effect of this trade ban was the reason why the city of Bruges asked for negotiations. After the Hanseatic merchants were promised improved trade privileges, the conflict was settled in 1282 and they returned to Bruges.

265 Cf. VOLCKART 2004a, p. 195 f.

The conflict between Hansards and the city of Bruges in 1307–09 showed almost the same pattern.²⁶⁶ In 1358, the Hansards once again deployed the measure of leaving the Bruges market. By that time, the conflict between Hansards and the city of Bruges became much more serious than it had been in 1280–82. The Hansards felt their rights had been violated after a ship from Greifswald was seized by Englishmen near Bruges and the English king, reacting to the condemnation of the interlopers in Flanders that followed this seizure, had confiscated all Hansard goods in England. The Hansards themselves then entered claims of recompensation for the confiscated goods in Flanders. Since these claims were turned down by the count of Flanders, the Hansards declared a ‘war of trade’ against Flanders. To make their threat more credible, the *Kontor* was moved to Dordrecht in the county of Holland, and together with numerous Hanse towns the merchants of the *Kontor* in Bruges blocked all kinds of trade with Flanders. Because of the economic depression resulting from this trade embargo in Bruges as well as in the county of Flanders, the city of Bruges and the count of Flanders both had to give in, which they actually did in 1360. In turn, the *Kontor* was moved from Dordrecht back to Bruges.²⁶⁷

An older view of such collective action of the Hanse and its merchants would probably emphasise that the Hansards mainly committed to cooperation because it was for a good and noble cause. We think it is not necessary to make this kind of strong and, in a sense, naive assumption to explain the collective actions of Hansards. In our view, arguing along the line of the problems of rational behaviour that typically evolve in connection with the provision and preservation of collective goods would make more sense. In general, cartels provide their members with public goods – a special case of the more general category of collective goods, the right to share trade privileges, for instance, or the power to influence market prices through a coordination of the group’s aggregate demand or supply. A typical spin-off of this kind of behaviour is that also merchants who are not members of a cartel do profit from such trade privileges or price shifts. Assuming the rational and opportunistic behaviour of actors, discipline within the cartel will thus be undermined. Since everybody wants to benefit from the

266 Cf. SELZER 2010, pp. 38–40.

267 Cf. SELZER 2010, p. 50.

public good provided by a cartel, but nobody is willing to pay the necessary cost of producing and maintaining this public good, the cartel will break asunder and members will compete with each other again. So, from a rational-behaviour perspective, cartels prove to be notoriously unstable, because all members tend to act as free-riders, and free-riding is indeed the only rational strategy.

Hanseatic merchants could nonetheless prevent their cartel from dissolution. They were able to coordinate collective action by transforming the public good into a so-called club good. In economic terms this is a good that is owned by a group, but from which all potential consumers who do not belong to the group can be excluded. This transformation was achieved by defining formal rules for the membership, by introducing a hierarchy and by enforcing discipline within the cartel through the threat of punishing those who do not respect rules. Such rules can be found for all of the Hanse's four main outlets of trade. Discipline and punishment was the duty of the *Ältermänner* ('oldest men' or heads), who were elected from the group of merchants. In Novgorod, Bergen and London, where all or most of the merchants lived together in the *Kontore*, the identification of rule breakers in case of a defection was quite easy. Given the rather big and even growing group of merchants, however, the marginal costs of free-riding of individual traders were decreasing. Hence, the formalisation of interaction at the *Kontore* and the implementation of a hierarchy there was a straightforward approach by Hanseatic merchants to solve the first-order-problem of cooperation they were faced with. And, conflict in general helped to stabilise the Hanseatic cartel, insofar as the necessity of binding rules became obvious to everyone. During the Flemish trade ban of 1358–60, at least two cases show that merchants who did not respect the regulations and resolutions commissioned by their respective *Kontor* had to fear a severe punishment. There are good reasons to believe that *Johann van Thunen*, a factor of the Teutonic Order in Bruges, made use of some sort of insider information to buy Flemish cloth much cheaper than other Hanseatic merchants were able to just before the trade embargo ended. As his practice had become obvious, his property was confiscated and he was also threatened with a physical punishment. Another example is that of *Tidemann Nanning* from Bremen, who was suspected of having traded in Flanders, ignoring the general Hanseatic trade ban. This case shows that

a cartel-like behaviour could also be enforced indirectly. In response to *Tidemann Nanning's* disregard of the trade ban all merchants from Bremen were instantaneously excluded from the Hanseatic trade privilege until they attempted to punish their selfish compatriot and confiscate his property.²⁶⁸

Avner GREIF, Paul MILGROM and Barry R. WEINGAST showed in their seminal paper of 1994 that a clear formal and hierarchical internal structure of the Hanseatic cartel was even in the interest of the prince or the town who / which had granted trade privileges to merchants, because this structure reduced the costs for all kinds of negotiation and made trade more profitable even for the granting instance.²⁶⁹

The Second-order Problem of Coordination

Being able to solve the first-order-problem of cooperation for the trading outlets was an important factor in the rise of the Hanse and the economic success of its merchants. Unfortunately, other problems regarding the collective and coordinated action of actors of the Hanse could not be handled that way. In addition to the first-order-problem of cooperation, also a so-called 'second-order-problem of cooperation' usually arises.²⁷⁰ Or, to put it more explicitly: in the beginning, it is not automatically clear who is actually coordinating the cooperation of cartel members. Here, this applies to the widely informal cooperation of Hanse towns, which again emerged mainly in situations of conflict. What appears to have been a relatively easy and straightforward solution at the *Kontore*, where supervision was handed over to the elected officials (*Altermänner*), turned out to be a much more difficult task with respect to the cooperation of Hanse towns. It was only later on that representatives of Hanse towns began to come together at the diets of the Hanse (*Tagfahrten*) on a more regular and also more formal basis. The Hanse's claims and strategic interests as a political actor in North and West Europe had to be specified and also enforced in the case of conflict.²⁷¹

In several wars in 1361–70 and again in 1427–32, different coalitions of Hanse towns fought against the political and geostrategic aspirations of the

268 Cf. SELZER 2010, p. 48 f.

269 Cf. GREIF / MILGROM / WEINGAST 1994.

270 Cf. VOLCKART 2004a, p. 198 f.

271 Cf. HENN (ed.) 2001.

Danish king at the time. Again, the cutback or breach by foreign actors of already existing rights like market access or the opportunity for Hanseatic merchants to use waterways caused conflict. The war of 1361–70 is quite an illustrative example of the formation of a cooperative structure among the towns of the Hanse. In 1361, King Waldemar IV of Denmark took over the herring markets in Scania and denied merchants from Lübeck access to these markets. He also conquered the town of Visby on the isle of Gotland, an important centre of Hanseatic trade in the Baltic, and he finally gained a hold over the Sound, which made Hanseatic maritime trade from the Baltic towns to Western Europe more difficult, if not impossible. As a consequence, the diet of the Hanseatic League concluded on a trade ban on Denmark, and Lübeck, together with some of the Wendian towns, went to war with Denmark. The armament of a small fleet of twelve vessels was financed in part by the pound toll (*Pfundgeld*), a tax paid by all incoming ships in the harbour towns. At first glance, the first phase of this war seemed to have ended in catastrophe for Lübeck and its allies, since the complete fleet of the Hanse was defeated. Nevertheless, following a ceasefire with the Danish king, which was maintained until early 1368, the merchants from Lübeck could regain access to the important herring markets in Scania. Hostilities flared up again in 1368 when a Hanseatic fleet conquered some important Danish strongholds in the Sound and, as a result, the Sound route could be opened again for Hanseatic maritime trade. However, to be prepared for this second phase of the war, complicated and lengthy negotiations between the Hanse towns were necessary. Since the commercial position of Lübeck was more or less fully re-established in the ceasefire of 1362, by which the access to the markets in Scania was guaranteed, Lübeck no longer had a deep interest in going to war again with the Danish king. In contrast, the trade of the Prussian towns and also that of Amsterdam, Kampen, Harderwijk, Dordrecht and Briel in the West suffered from the fact that the Sound route was still closed. At a diet in Cologne in November 1367, the towns decided to go to war again ('Federation of Cologne'), a resolution that was only accepted by Lübeck and the Wendian towns with great reluctance. With a second ceasefire in 1369 and the 'Peace of Stralsund' in 1370, the conflict was finally settled.²⁷² Surely

272 Cf. SELZER 2010, p. 66 f.

these wars, commonly seen as wars of the Hanse, were responsible for the false interpretation of the Hanse as a powerful, well-armed and coordinated political actor encompassing numerous cities and towns. In fact, as can be seen from these cases, only a few of the Hanse towns were actively involved in these wars and other towns, like Amsterdam, at no time members of the Hanse, were included in the Federation of Cologne. Nonetheless, these conflicts then in turn had a catalytic function for a clearer definition of both the internal structure of the Hanse and its strategic claims.²⁷³

The problem of organising a powerful collective response to a violation of the towns' commercial interests can be modelled in a game-theoretical framework, making the usual strict assumptions of utility maximisation, simultaneity of choice and absence of a third-party actor who would be able to enforce a cooperation of players. Then a simple game for two towns (players *A* and *B*) is defined as follows: costs C_A and C_B are the players' individual contribution to the maintenance of a certain level of collective security, for instance. In a cooperative solution both players *A* and *B* accept to bear an equal share $TC/2$ of total maintenance costs, $TC = C_A + C_B$, but each of them is willing to pay the amount of $WP_i \geq TC/2$, if that level of collective security can be realised. There is a fundamental difference to the classic 'public goods problem'²⁷⁴: unlike the production of knowledge for instance, here the public good (collective security) cannot be generated by the efforts of only one player, simply because in most cases this would be too costly, and therefore would be an unrealistic choice. Thus, both WP_A and WP_B definitely lie below TC . In addition, a failure to maintain a certain level of collective security would affect the commercial interests of particular towns as well as those of the Hanse. As a consequence, the absence of the public good is felt by the towns as some sort of disutility $-U_p$, and their commercial interests are in fact at stake if collective security cannot be guaranteed. The amount of disutility cannot be clearly specified, but assuming risk aversion, it certainly lies below zero, and even if some towns are not aware of the commercial risks coming from a blockade of the Sound by the Danish, e.g., this value would equal zero at best. This was the case for the Westphalian towns during the con-

273 Cf. DOLLINGER ⁶2012, pp. 83–90.

274 The classic public goods dilemma is described in terms of the so-called prisoners' dilemma in HOLLER / ILLING ³1996, p. 8 f.

flicts of the Hanse with the Danish king, because to them, at first glance, this blockade of maritime trade between the Baltic Sea and the North Sea did not appear to have any impact on their own trade. And this was also true for the strategic considerations of Lübeck before joining the Federation of Cologne rather unwillingly. Naturally, the rather abstract willingness to pay can only be converted into utility if the public good concerned is actually generated. In a cooperative solution, utility is calculated by subtracting individual costs from the willingness to pay ($WP_i - C_i$). For the remaining potential outcomes of the game where collective security will not be generated, because at least one player is not contributing, players would face a disutility $-U_p$, and in the case that one decides to contribute while the other does not, they would also have to write off their own share of costs. Utility levels are displayed in the pay-off matrix of Table 5.1.

Table 5.1: Pay-off Matrix of a Two-Player Collective Security Realisation Game

		Player B		
		contributing	not contributing	
Player A	contributing	A: $WP_A - TC/2$ B: $WP_B - TC/2$	A: $-U_A - TC/2$ B: $-U_B$	$-U_A - TC/2$
	not contributing	A: $-U_A$ B: $-U_B - TC/2$	A: $-U_A$ B: $-U_B$	$-U_A$
<i>Min. (B)</i>		$-U_B - TC/2$	$-U_B$	

Source: Authors' own drawing.

For this two-player-game, the outcome can easily be derived from the behavioural assumptions that are made. For the purpose of maximising their own utility but minimising their risk both players will play a 'min-max-strategy'; that is, they will opt for the best result of their personal worst cases, which in fact is not to contribute. Not contributing gives the maximum of the minima, which is $-U_i$ respectively, the players A and B would have to face with regard to the other player's possible decision. However, without the help of further institutions the players' acknowledgement of the positive value of collective security does not convert automatically into fruitful cooperation. The strong disutility resulting from the commercial risks of not maintaining collective

security is an insufficient condition to finally attain a cooperation of towns to respond collectively. The problem is not only caused by free-riding alone, as is the case of the classic ‘public goods dilemma’. Since by definition collective security usually cannot be ensured without the contribution of both players, free-riding is merely impossible here. Players will not contribute, because they fear that their personal investment could be useless. Investing in the armament of a fleet, for instance, will by no means reduce their own commercial risk if the other player is not doing the same. As the public good of ‘collective security’ will not be realised, this outcome, called the Nash-equilibrium²⁷⁵, is not an optimum result of course, neither with respect to individual nor to overall utility. If both towns decided to contribute, they would be better off individually as well as at the group level. This notwithstanding, refraining from contribution is nonetheless a rational decision given the behavioural assumptions of the game. Even if players do not acknowledge the commercial benefits from collective security ($WP_i = 0$), which was very often the case among Hanse towns, and do not perceive commercial benefits as such ($-U_i = 0$), the outcome would be the same. With $WP_i \geq TC/2$ and $-U_i$ the cooperative solution of the game is Pareto-efficient insofar as neither of the players can improve their own utility level, and therefore also cannot be better off without decreasing the other’s utility level. The much better solution of both parties contributing can only be attained by third-party-enforcement or mutual trust, elements that by definition are missing in this particular setting.²⁷⁶

The game can be easily extended to the more realistic case of n players. For each player the willingness to pay for the maintenance of collective security remains below total costs ($WP_i < TC$), but again is greater than or equal to the individual costs of contribution (TC/n). Unlike the two-player-game, not all players involved necessarily have to decide to cooperate to generate the public good. Collective security nonetheless can only be realised if a considerable number of players contribute. Utility levels for each player i are calculated in exactly the same way as in the two-player-game (see Table 5.2 for pay-offs).

275 See on the concept of Nash-equilibrium KREPS 1990, pp. 28–36; HOLLER / ILLING ³1996, pp. 9–13.

276 Cf. GRAVELLE / REES ³2004, p. 283 f.

Table 5.2: Pay-off Matrix of a N-Player Collective Security Realisation Game

Player <i>i</i>	Number <i>j</i> of other players contributing					Min. (<i>i</i>)	
	<i>n</i> - 1	<i>n</i> - 2	...	<i>n</i> - ...	...		0
contributing	$WP_i - TC/n$	$WP_i - TC/(n-1)$	...	$U_i - TC/n$	...	$U_i - TC/n$	$-U_i - TC/n$
not contributing	WP_i	WP_i	...	$-U_i$	...	$-U_i$	$-U_i$

\leftarrow public good is realised
public good is not realised \leftarrow

Source: Authors' own drawing.

To a certain degree, returns now depend upon the number *j* of players other than player *i* contributing, because if enough players decided to contribute and collective action could be guaranteed, these players would have to pay the maintenance costs. If not enough players contribute to finally realise the public good of collective security, each player will have to write off the equal-share-contribution (TC/n) only. For a particular player *i* the worst case scenario still is the one where he would pay for the maintenance of collective security, but many other players would not, so that security cannot be maintained in the end. Thus, the equilibrium reached will be exactly the same as in the simpler two-player-case. Free-riding is now possible, and this can enhance the towns' unwillingness to further contribute to the maintenance of collective security, because their own contribution not only is perceived as useless, but there is also an opportunity to get rid of the unpleasant commercial risk by not paying for it. This result does not change if the game is played in a sequential mode and players no longer have to decide simultaneously. For that reason the outcome can be referred to as a 'missing-hero-dilemma', because on rational grounds no player would decide to contribute, and be one of the 'heroes' who is paying for the maintenance of collective security. And even if, for whatever reason, enough players decided to contribute, incentives for the remaining players would not be altered in a way that encourages contribution. Quite the reverse in fact; by free-riding on the others' investments the last players could benefit from the collective security already ensured.²⁷⁷ This might very well explain why only a few Hanse towns decided to contribute to any collective action.

277 Cf. DIEKMANN 1992.

An open-ended repeated game now is an even more appropriate model to describe the real-life situation of the medieval Hanse. In general, trust between players can be built up if a game is played repeatedly. Setting the game with infinite repetitions then can make players opt for cooperation, accepting temporary losses of utility in one round, because the likelihood of being compensated in subsequent rounds is quite high due to the existence of trusted relationships. In contrast, given a finite number of repetitions and given that players know when the last round will be played, cooperation cannot be reached. Rationally behaving players will decide not to contribute in the last round, because there are no more rounds to compensate for losses. This last-round-rationale can be transferred backward to earlier rounds, yielding always the same result.²⁷⁸ As long as not all players' contributions are needed to finally realise the public good of collective security, incentives to free-ride still exist, and any free-rider can assume that his own decision to not contribute to ensuring collective security will not prevent the production or the maintenance of this public good.²⁷⁹

The formal, but overall fairly weak structure of the Hanseatic League *per se* was certainly not able to enhance the cooperation of towns for the benefit of all. Participation in the diets of the Hanse was voluntary, the diets' resolutions only encompassed non-controversial issues because of the underlying principle of unanimity, and the Hanseatic League itself had no real authority in getting resolutions accepted. To some degree mutual trust might have been effective here. Trust is a powerful tool for the coordination of private interests in smaller groups²⁸⁰, and the number of towns eligible for potential cooperations was small enough to let trusted relationships be an effective means of coordination, at least in the earlier history of the medieval Hanse. From the prosopographical research of both Dietrich W. POECK²⁸¹ and Friedrich Bernward FAHLBUSCH²⁸² it is a now well-known and acknowledged fact, that there existed many kinship bonds between the councillors of different towns of the Hanse. And even though the diets

278 Cf. AXELROD 1984, p. 10; VOLCKART 2004b, p. 28.

279 Cf. VOLCKART 2004b, p. 28.

280 Cf. DIEKMANN 1992.

281 Cf. POECK 2002; 2010.

282 Cf. FAHLBUSCH 2002; 2005.

of the Hanseatic League might not have been instrumental as a legislative institution of the Hanse, what is more important is that these events created opportunities for town representatives to meet on a more or less regular basis, and in this respect the diets certainly helped to build up trusted relationships between towns. This personal element of the Hanseatic League can very well be seen in the formal structure of the written resolutions of the Hanse diets. These resolutions always began with a lengthy list of the names of those town representatives who were present at a particular diet. So, trusted relationships between town councillors helped to attract towns willing to cooperate, to pass resolutions at the diets and also to put such resolutions into action. On the other hand, the ever growing number of potential members of the Hanse in the end was dysfunctional for a fruitful cooperation of towns based solely on trusted relationships and for effectively preventing free-riding among Hanse towns. Hence, with players assumed to behave rationally, in the long run voluntary care for the avoidance of commercial risk and the contribution to the provision of collective security were barely possible.

A simple, but efficacious solution to enhance cooperation in this sort of situation is to transfer leadership to the actor involved whose private economic interests are at stake as a kind of reward for bearing the majority of costs. In these cases, collective security remained a public good, but the defence of private economic interests served as a strong incentive to also enhance the willingness to contribute to its preservation on the part of those actors whose economic interests were not at stake. This was the case in the war between the Hanse and the Danish king in the period of 1361–70. Lübeck assumed the leadership of the alliance in the first phase of the war with the clear aim of re-establishing the commercial position of its merchants in Scania, but thereafter, in the second phase of the war, handed leadership over to a group of Prussian and Dutch towns, simply because these towns had a much higher interest in ending the Danish blockade of the Sound. In both phases of the war, the pound toll made it possible to receive at least a share in the necessary military expenses of those towns which had initially been quite reluctant to join the cooperation. This notwithstanding, in similar cases the Westphalian towns often argued that they were not affected by such far away conflicts. So in the end a good explanation was needed as to why the resolution of a single conflict would be in the interest

of all Hanse towns. Letting private interests appear as common interests was usually a viable strategy for the potential future leader of the coalition. The leading role of Lübeck within the Hanse developed slowly over time, because the town representatives of Lübeck always tried to turn private strategic interests into common Hanseatic interests in order to pursue their proper economic objectives with the help of other towns. Finally, this pattern also worked well with respect to the fight against interlopers, because here a common interest of usually more than one town was obvious.

As a result, the Hanseatic League as a formal, but in the end weak association of towns evolved, trying by and by, under the leadership of Lübeck, to monopolise Hanseatic decision-making. However, formalisation and hierarchisation of such cooperations on a case-by-case basis is neither a straightforward nor necessary outcome in the long run. This result may explain why such attempts to formalise the cooperation of Hanse towns and to establish a sort of central instance of decision-making were never truly successful. This central instance also failed, because free-riders and rule breakers could not be easily identified. A real threat to them would have been their exclusion from enjoying the trade privileges at the *Kontore*. However, the merchants of the *Kontore* were neither capable nor were they always interested in identifying and punishing those who did not respect the regulations which were negotiated at the Hanse diets.

Determinants of Fruitful Cooperation and of Cooperation Failure

Finally, we shall produce some general conclusions regarding the interplay of the different organisational layers of the Hanse. As has been shown in this chapter, the Hanse was a virtual and multipolar network organisation. Economically, Hanse members formed a cartel to defend the quasi-monopoly of trade they enjoyed in Northern Europe, especially in the Baltic.

Quite similar to modern multipolar organisations, such as NATO, the EU or temporary military alliances, the cooperation of Hanse members was in principle rather difficult and required special conditions. The history of the Hanse, mainly the episodes of conflict with actors from outside the Hanse, can help to identify these requirements, especially with respect to the interaction of towns, merchants and the *Kontore* in the late Middle Ages. An economic theoretical analysis allows an explanation as to why certain

forms of cooperation emerged within the Hanse and others remained poorly developed or were even still lacking at the end of the fifteenth century.

From the Hanse example it becomes quite evident that a lasting cooperation only evolved in the event that a formally and hierarchically structured organisation could be established, as was the case at the *Kontore*. Only this sort of organisation was capable to stabilise the merchants' cartel in the long run. This was because general binding rules were defined and members of the cartel committed to these rules because they were threatened with punishment or, even worse, with the exclusion from the cartel in the event they broke these common rules, and because rule-breakers knew that they could easily be identified. Thus at the *Kontore* the cooperation and coordination of merchants became possible by setting mainly negative incentives.

In other parts of the virtual and multipolar organisation known as the Hanse this kind of regulation was either not implemented or attempts to do so were not successful in the end. Cooperation between Hanse towns was nonetheless possible, and it was usually a result of setting positive incentives. Hence, it was a rather straightforward outcome that such forms of cooperation could only be achieved from time to time, and these occasional cooperations never really turned into a sustained form of cooperation. NATO and the EU have formal rules, and to some degree they also possess hierarchies. The late medieval Hanse lacked both of these institutional elements. Cooperation at the level of towns was based on the principle of setting positive incentives. A transformation of the network structure of the Hanse into a hierarchical structure more or less failed completely when Lübeck switched from setting positive incentives to setting negative ones, by intending to punish those towns or even to exclude them from the Hanse, which were ignoring or breaking the rules that had been negotiated at the Hanse diets, for instance, or by trying to influence the decision-making at the *Kontore* in a commanding manner, even though the competence to rule the *Kontore* historically lay exclusively in the hands of those merchants who traded there. A key factor of this failure was certainly the fact that the economic interests of towns and the commercial interests of merchants who traded at the *Kontore* could never be completely synchronised.

