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Logistics as a security policy tool

– exploring motivations for
allied support in the case of Norway

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Summary

How, if at all, might logistics serve as a security policy tool for increasing the likelihood of allied support? Over the last few years, European NATO allies such as Germany and France have expressed uncertainty about the validity of the alliance's security guarantee. This uncertainty stems as well from the Trump administration's more transactional approach to international commitments, as to the larger geopolitical evolution following the Cold War. During the same period, the Norwegian Defence Logistic Organization (NDLO) has increased its capacity for host nation support. This has prompted the question from the NDLO whether and how logistic host nation support might affect the probability of receiving allied reinforcement, in particular American support, in a potential future conflict with Russia.

This report explores the potential, theoretical causality between logistics and the probability of receiving such allied support in crisis or conflict. To our knowledge, no previous research covers this research question.

We first develop a theoretical framework to study what generally motivates allied support. We deduce four hypotheses, based on four theoretical perspectives from international relations (IR) theory. The hypotheses are categorized as: interest, values, enlightened self-interest, and identity. Second, we consider potential direct and indirect effects of logistics. Systematizing the different aspects of logistics, we assess (1) each element of logistics and (2) the logistics aspects of the nine functional areas of military operations. Finally, the specifics of the Norwegian defence logistics system is used as a case to illustrate each IR perspective's logic of what motivates allied support and whether and how logistics could figure in this equation.

Our analysis shows that it is uncertain – but possible – that logistics in general, and the specific changes made to the Norwegian logistics system over the last decade in particular, can increase the likelihood of allied support. While the interest and identity hypotheses merely allow for limited and potential indirect effect, the logic of the enlightened self-interest perspective allow for a direct effect between logistics and allied support, based on logistics as a cost decreasing and success increasing measure. According to the values hypothesis, logistics could have a direct effect, as long as logistics is defined broadly and, specifically, includes international agreements. The other two hypotheses only allow for a potential and limited indirect effect.

Hence, the logistics measures that possibly could serve as security tools, per some of the theoretical hypotheses, are mainly those that reduce cost, increase likelihood of operational success, or that constitute joint agreements. Consequently, measures such as provision of extensive logistic support and services, as well as subsidizing training costs for allied armed forces could potentially serve as security tools. However, further data collection and analysis is necessary to be able to substantiate this preliminary and theoretically based finding.

Sammendrag

Kan logistikk være et sikkerhetspolitisk verktøy? Denne rapporten undersøker om logistikk kan øke sannsynligheten for alliert støtte. Hvordan vil i så fall dette kunne fungere?

De siste årene har flere europeiske allierte, uttrykt usikkerhet rundt Natos sikkerhetsgaranti. Det gjelder blant annet Tyskland og Frankrike. Usikkerheten skyldes Trump-administrasjonens mer transaksjonsbaserte tilnærming til internasjonale forpliktelser. Den skyldes også mer generelle trekk i den geopolitiske utviklingen etter den kalde krigen.

I løpet av den samme perioden har Forsvarets logistikkorganisasjon økt sin kapasitet for å kunne ta imot og understøtte allierte styrker. Den operative effekten av dette er det liten tvil om. Kan det også ha en strategisk effekt? Kan logistisk vertslandsstøtte også øke sannsynligheten for å få alliert forsterkning? Fra et norsk forsvarspolitisk synspunkt gjelder dette spørsmålet særlig amerikansk alliert støtte i en potensiell framtidig konflikt med Russland.

Rapporten utforsker denne mulige årsakssammenhengen mellom logistikk og sannsynligheten for alliert støtte ved å anvende teorier fra internasjonal politikk. Så vidt vi vet dekker ingen tidligere forskning dette forskningsspørsmålet. Vi utvikler derfor et teoretisk rammeverk for å studere hva som generelt motiverer alliert støtte. Vi utleder fire hypoteser basert på fire teoretiske perspektiver innen internasjonal politikk. Hypotesene for hva som motiverer alliert støtte er kategorisert som: interesse, verdier, opplyst egeninteresse og identitet. Deretter vurderer vi potensielle direkte og indirekte effekter av logistikk. Vi benytter to ulike tilnærminger til hva logistikk kan omfatte. Den ene er Natos definisjon av logistikk. Den andre er logistikkaspekter ved de ni funksjonsområdene til militære operasjoner. Til slutt bruker vi Forsvarets logistikksystem som case. Caset skal illustrere om og hvordan logistikk eventuelt kan påvirke sannsynligheten for alliert støtte, gitt de fire teoretiske hypotesene.

Vår analyse viser at det er usikkert, men fortsatt mulig, at logistikk generelt, og de spesifikke endringene som er gjort i Forsvarets logistikksystemet det siste tiåret spesifikt, kan øke sannsynligheten for alliert støtte. Denne potensielle årsakssammenhengen støttes av noen, men ikke alle, hypoteser. Hypotesen om opplyst egeninteresse tillater en direkte effekt mellom logistikk og alliert støtte, ettersom logistikkstøtte kan bidra til å redusere alliertes kostnader og øke sannsynligheten for operativ suksess. Ifølge verdihypotesen, kan logistikk ha en direkte effekt på alliert støtte dersom logistikkbegrepet forstås bredt, slik at internasjonale avtaler inngår i definisjonen. De to øvrige hypotesene tillater kun i begrenset grad en potensiell indirekte effekt.

Overordnet gir noen av hypotesene dekning for at logistikktiltak som fører til kostnadsreduksjoner eller økt sannsynlighet for operativ suksess, samt felles avtaler og økt alliert samarbeid, vil kunne bidra til å øke sannsynligheten for alliert støtte. Ytterligere datainnsamling og analyser er imidlertid nødvendig for å kunne underbygge dette foreløpige og teoretiske funnet.

Contents

Summary	3
Sammendrag	4
1 Introduction	7
1.1 Contextual backdrop	10
1.2 NATO and the High North	11
1.3 Measures in a security policy context	12
2 Method	15
2.1 Data collection	15
2.2 Theoretical framework	17
2.3 Analysis	18
2.4 Peer review	19
2.5 Rationale, scope and limitations	19
3 Logistics and Host Nation Support	21
3.1 Definitions and clarifications	21
3.2 The military effect of logistics	24
3.3 Dependence on civilian resources for efficient logistic support	24
3.4 The Norwegian Defence Logistics System	25
4 Theoretical Framework	31
4.1 What determines allied support: Four hypotheses	31
5 Logistics and allied support	35
5.1 Approach 1 – Logistics as defined by NATO	35
5.2 Approach 2 – Logistics within functional areas of military operations	37
5.3 Approach 1 vs. approach 2	39
5.4 The Norwegian defence logistics system as a case	40
6 Concluding remarks: Potential implications and further research	45
Abbreviations	48
References	49



1 Introduction

Substantial parts of Norwegian defence planning deal with securing allied support – political-military assistance from allies in the event of an attack – and ensuring its effectiveness on arrival (Prop. 14 S (2020–2021), 2020; Prop. 151. S (2015–2016), 2016). A key question, therefore, is whether the two are also interconnected in the sense that enhancing the ability to receive and support allied forces in and of itself increases the probability of getting them in the first place. Mindful that such efforts may be of no consequence at all – the assessments of allied governments and militaries may be driven by completely different considerations – we explore how different IR traditions would address the question of logistics as a potential security tool.

When balancing operational or combat capabilities within the armed forces with the capacity for receiving allied reinforcement, logistics and host nation support are important factors that must be considered.^{1,2} For a small state and a member of NATO (North Atlantic Treaty Organisation) such as Norway, logistics host nation support plays a significant role in allied reinforcements in the case of a military conflict: for the alliance to have the intended two-pronged effect of first deterring conflict, and then preventing a *fait-accompli* in the event that deterrence should fail, the concrete, practical ability to actually receive allied support is critical. As such, Alliance adaption³ was one of four alternative development paths for the Norwegian Armed Forces that FFI evaluated in the preparations for the current long term defence plan (Skjelland et al., 2019). This topic has also received increased attention in connection with Norwegian long term defence planning the last few years. Moreover, the Norwegian defence logistics system has gone through a major modernization during the last decade, where strategic partnerships with private companies have been developed. According to Birkemo et al. (2019) this has resulted in an increased ability to support the reception of allied reinforcements.

Military logistics is generally seen as a tactical or operational level tool. But is it possible that it can play a more direct role in a state's security policy? Can military logistics be a strategic security tool in its own right – rather than merely a tactical one? In short: could the use of logistics itself increase the likelihood of receiving allied support?

¹ NATO defines logistics as: 1) Design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel; 2) Transport of personnel; 3) Acquisition, construction, maintenance, operation and disposition of facilities; 4) Acquisition or furnishing of services; 5) Medical and health service support.

² The main part of host nation support consist of logistics. When this report refers to “host nation support” or “logistics”, it covers the logistics part of host nation support only. This encompass the provision of goods, services and infrastructure, in accordance to the definition of logistics, necessary to facilitate and support Allied operations in and around Norway in all phases of a conflict, as well as in peace for exercises and peacetime operations

³ Due to Skjelland et al. (2019) an Alliance adapted path would include to strengthen Norway's contribution to NATO, to strengthen ties with our most important allies and partners and to ensure the deployment of allied forces to Norway and strengthen their ability to operate in Norwegian areas.

In order to investigate these overall questions, this study will:

1. Briefly review different types of measures at different levels (diplomacy, bilateral relations, host nation support etc.) that is included in assessments related to allied reinforcement.
2. Compare different military strategic tools and measures to increase the alliance's willingness to support member nations, and identify which of these “criteria” Norway, through its defence structure, can influence.
3. Discuss the importance of the various parts of the logistics system, and the system's ability to meet (relevant) operational requirements.

In our search for relevant data, we found no previous research on neither of these points, except for a classified FFI study on the logistics system's ability to meet operational requirements. Furthermore, we found no allied or national governing documents emphasizing logistics as a measure to increase the likelihood of allied support. During a workshop with subject matter experts, we also did not get any indications on the strategic effect of logistics, perhaps owing to the political delicacy of the subject in question. Few if any contend that Allies implementing certain measures has any effect on the likelihood of allied support. The need for foundational research is therefore clear. Thus, this report sets out to take the first steps of developing a theoretical framework, as well as applying it to empirical material in the case of Norway's logistical system in order to illustrate how the theoretical hypotheses might play out.

The report is structured as follows. First, we consider alliances and the factors motivating their member states to support each other by consulting Vårin Alme's ongoing PhD research “Drivers of American Alliance Policy: A Wargaming Approach” (Work in Progress). In her research, Alme formulates four hypotheses for what motivates allied support: Interest, values, enlightened self-interest, and identity. Second, we apply these hypotheses to the case of Norway's security policy, alliance membership, and logistics system, and explore how logistics could serve as a motivator in its own right for allied support. Third, we consider the aspects of logistics through two different definitions, one narrow and one broad. Finally, the specifics of the Norwegian military logistics system is used as a case study to illustrate the possible practical implications of the theoretical hypotheses, i.e. if and how logistic measures can be taken in order to increase the probability of receiving allied reinforcements.

It is our experience that within the field of defence operational planning, a general assumption is that increasing the chances of operational success and decreasing the costs of allied reinforcements will increase the likelihood of allied support. As we will see, this is in line with the assumptions of the enlightened self-interest hypothesis, and they are just that – *assumptions* – that should be studied rather than reified. This report takes the first step in such study, but further research is necessary. Moreover, there is also, in our experience, an assumption that logistics arrangements might contribute in deterring a potential threat, such as Russia. This question is beyond the scope of this report, although a study of potential effects on deterrence might apply a similar research design. We do not attempt to conclude on *whether* logistics

increases the likelihood of allied support in absolute terms, but study *how* each of the four IR hypotheses would treat this question. Our goal is to analyse the issue of how logistics *might increase* that likelihood, based on assumptions made within each of the theoretical paradigms. Hence the research question is: *How, if at all, might logistics serve as a security policy tool for increasing the likelihood of allied support?*

The term ‘logistics’ when considered as a measure of security policy encompasses the provision of goods, services and infrastructure necessary to facilitate and support allied operations in and around Norway in all phases of a conflict, as well as in peace for exercises and peacetime operations. Hence, logistic capacity is one aspect of importance to the research question. Logistic arrangements and agreements is another aspect that may be of importance. We use the terms allied support and allied reinforcements interchangeably, meaning that we consider support to consist of military support – that is, the reinforcement of one’s own military capability in a concrete conflict or crisis. Moreover, allied support references support given in the context of a formalized military alliance. As such, the study of whether or not allied support is to be given will be relative to the language of the alliance treaty. As Norway is our case, the NATO alliance becomes our natural focal point. Thus it is particularly article 5 of the NATO treaty, pledging that an attack on one member state is an attack on the alliance that will trigger collective defence, which will be of interest.

The target group of the report is personnel working with defence and logistics planning, researchers both in political science and logistics as well as people who have a general interest in defence, defence logistics, security politics and alliances.

This report consist of six chapters. Below, the current chapter will give an introduction to the dependence and validity of NATO’s collective defence and to NATO in the High North. Chapter 2 will define and describe logistics and host nation support in general terms before presenting the case of the Norwegian defence logistics system. Chapter 3 presents the theoretical framework and the hypotheses about allied support when framed by IR theory. The sources and methods used in the study are described in chapter 4, before we turn to the actual analysis of the likelihood of allied support when applying IR theory to logistics in general and exemplified by the Norwegian case in chapter 5. Finally, the possible practical implications, meaning potential political measures, are presented in chapter 6.

Our analysis shows that it is uncertain, but possible, that logistics in general, and the specific changes made to the Norwegian defence logistics system over the last decade increase the likelihood of allied support. The study can at best indicate a potential causality between these logistical measures and the likelihood of allied support. This potential causality is supported by some, but not all, of the theoretical hypotheses studied in this report. Out of four, two hypotheses allow for a direct effect between logistics and allied support. The other two hypotheses do not allow for such direct effect. They do, however, to varying degree, allow for potential indirect effects.

1.1 Contextual backdrop

Norway's strategic situation is essentially characterized by its fundamental dependence on allied reinforcements in a potential armed conflict with Russia. This follows from the massive political and military asymmetry between the two countries, which has led Norway to adopt a policy of balancing between deterrence and reassurance (Hilde, 2019, p. 61). Norwegian membership in NATO is the core of both the reassurance and the deterrence aspect: keeping the alliance at a proper distance, such as through the policy of avoiding foreign bases in peacetime (known as *basepolitikken*)⁴ is a major part of the reassurance aspect; at the same time, the collective defence of the Alliance, articulated in article 5 of the Atlantic charter, is the main part of Norwegian deterrence, and the core of Norwegian defence in the event of military conflict. As such, securing the timely intervention of allied reinforcements in a military crisis is an important factor in Norwegian long term defence planning (Prop. 14 S (2020–2021), 2020).

As Skjelland et al. (2019) point to, there is increased uncertainty in the long term linked to both the will and the ability of NATO to support Norway. Since the end of the Cold War, several trends have created an element of doubt about the relevance as well as the unconditional validity of the principle of collective defence embodied in the North Atlantic Treaty. This is, among other things, due to:

- The disappearance with the fall of the Soviet Union of a common, existential threat against all of Western Europe and the emergence of far more diverse perceptions among European countries of their security concerns (Kaplan, 2004).
- The declining military strength of the European NATO countries, raising doubts about whether sufficient allied forces with an expeditionary capability will be available as reinforcements in a crisis somewhere on NATO's rim, particularly on the flanks (Matlary & Petersson, 2013).
- The American "pivot to Asia" first announced by President Barack Obama and mirrored in the National Security Strategy of 2022 (The White House, 2022c), following American concerns about the rise and increasingly adversarial stance of China. This might lead to an American prioritization of the Pacific and a consequent reduction in U.S. capacity to reinforce Europe (Shambaugh, 2013).
- The signs of American withdrawal from international organizations, which became visible under the Trump administration, and which – although reversed by President Joe Biden – may surface again as part of mainstream American politics. This follows from some of the strong undercurrents in American society as well as the scepticism towards permanent foreign alliances that, some argue, has been an historical feature of American political thinking (DeConde, 1958; Gilbert, 2009; Kaplan, 1976).

⁴ Due to the Norwegian base policy, embodied in the base declaration of 1949, no bases will be opened for foreign countries' armed forces on Norwegian territory as long as Norway is not attacked or exposed to threats of attack.

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- Apparent American reluctance to actually apply force in the face of open challenges to its own statements and “red lines”, as demonstrated in the conflict in Georgia in 2008, and later in Syria (Kupchan, 2020, pp. 1–3; Obama, 2020, p. 345). This might, however, have changed with the American response to the Russian invasion of Ukraine, where President Joe Biden has committed significant resources to the conflict, all the while stating that a primary reason why American troops are not deployed is that Ukraine is not a member of NATO (The White House, 2022a).

In sum there has been a brewing uncertainty in many European countries about whether the membership in NATO provides a sufficient guarantee of allied support and assistance in a crisis, particularly from the United States. Indeed, some European NATO members have publically started calling for a European defence that to a lesser degree depends on the U.S. and on transatlantic security cooperation (Baume & Herszenhorn, 2018).⁵

In addition to presenting a problem to allied states if it is true that alliance guarantees are less reliable today, the fact that allies worry about this could in itself present a problem to these states’ security politics and to alliance dynamics. If there is a creeping doubt within an alliance about the validity of its mutual security clauses, this could trigger competition among its member countries. Members might try to supplement the alliance treaty by introducing additional measures to make themselves more “worthy” of reinforcements, or otherwise increase the probability of receiving the necessary assistance. While such efforts could be successful, depending on what determines allies support, they could also undermine alliance trust and cohesion, creating a sense of competition and rivalry between allies.

1.2 NATO and the High North

Over the last decade, following the deterioration of the West’s relations with Russia, the defence of the High North, including Norway, has received increased attention in NATO. In general, the Arctic has seen an increase of great power competition over the last decade. There has been a sharp increase in Russian military activity in the Arctic, with the opening of new bases, designation of specific ‘Arctic’ operational units, etc. The U.S. National Strategy for the Arctic describes “strategic competition in the Arctic” as increased and exacerbated by Russia’s attack on Ukraine (The White House, 2022b, p. 3). Meanwhile, China, who has now entered into a strategic partnership with Russia, is asserting itself as a “near Arctic” nation, exerting influence in the region, displaying intentions of widening its activities in areas such as trade, and signalling a “broader ambition to become a shaper of global rules and institutions” (Bennett, 2015; Bertelsen & Gallucci, 2016; Fravel et al., 2022; Moynihan, 2018).

The vast areas of international waters and airspace in the High North lend themselves to extensive patrolling and exercising by NATO maritime and air forces as a means of strategic communication with Russia. This has led to the establishment of a new operational headquarters, Joint Forces Command Norfolk with an explicit responsibility for this part of NATO’s

⁵ These discussions have however stopped temporarily or permanently during Russian invasion of Ukraine. Due to Biden, NATO have never been more united than now (Garamone, 2022).

Area of Interest. Concurrently the U.S. Second Fleet was re-established in 2018. Commander Second Fleet will be dual-hatted as the Commander for Joint Force Command Norfolk (Laird & Timberlake, 2021).

In Norway, the Government's current long term defence plan (Prop. 14 S) emphasizes preparations for the reception of allied reinforcements. This means new and more challenging tasks for the Norwegian Armed Forces and its logistics capability in particular. A case in point was exercise Trident Juncture 2018, which was the biggest NATO exercise since the Cold War, with more than 50 000 participants from 31 nations. FFI evaluated the civil military logistics system of the Norwegian Armed Forces and its delivery of logistics host nation support, concluding that all participating nations received the designated logistic support and that "the logistics system has demonstrated a very high ability to deliver the required supplies and services" (Birkemo et al., 2019). FFI's evaluation of the host nation support during the Norwegian exercise Cold Response 2022 have corresponding conclusions (Birkemo & Graarud, 2022).⁶ Both exercises demonstrated Norway's capacity to receive and support allied forces in the High North.

The development indicated above has resulted in the Norwegian Defence Logistics Organisation's (NDLO) Operational Head Quarter, becoming an organizational framework for the Joint Force Command's (JFC) Joint Logistic Support Group (JLSG) for the Northern Atlantic region. The head quarter previously known as "The National Logistic Operations Center" (NLOGS), concurrently changed its name to the Norwegian Joint Logistic Support Group (NOR JLSG). Through the re-establishment of Second Fleet and NOR JLSG as a framework for NATO's JLSG, a picture is emerging of Alliance integrated logistics and "logbase Norway" as a deliberate strategic and security policy tool designed to attract allied support in a crisis in the High North.

1.3 Measures in a security policy context

Norway's geopolitical and strategic situation is determined by its location on the Scandinavian Peninsula. In strategic terms, therefore, Norway is an island,⁷ only to be reinforced by a power with the capability to project power across the sea. The United States is the only NATO country today with a serious maritime power projection capability, possibly supported by the United Kingdom, by virtue of its carrier strike force groups coupled with its amphibious capability (Skjelland et al., 2022). The current chapter will focus on measures such as cooperation and integration, measures that are related to Allied support in general, and from U.S. in particular. These measures can also be used to distinguish and hence illustrate theoretical preferences.

⁶ Cold Response is a regular exercise which Norway hosts biannually. Cold Response 2022. Around 30,000 troops from 27 countries from Europe and North America.

⁷ If Sweden and Finland becomes NATO-members, all three countries becomes this island The Norwegian coastline will anyway be central in a potential allied reinforcement of the Nordic countries (Skjelland et al., 2022).

The newly recreated U.S. 2nd Fleet and the long-standing cooperation between Norway's armed forces and the 2nd Marine Expeditionary Force through Marine Corps Prepositioning Program – Norway (MCPN)⁸ constitutes a close relationship, making a U.S. Marine Corps (USMC) formation with its integral aviation element by far the most capable force Norway could hope to receive. The recently signed U.S.–NOR agreement covers a number of topics such as availability of infrastructure, prepositioning, U.S. training, protection and logistic support (The Norwegian Ministry of Foreign Affairs, 2021).

Further extension of cooperation with the USMC for facilitating the reception and commitment of marine reinforcements can be achieved in different ways. We can, for the sake of our discussion here, distinguish between five different kinds of measures (not including the measures of doing nothing or scaling back, as we will get to in chapter 5). As seen in the list below, these measures varies in terms of how they affect national capabilities as well as impact on established defence policies, and hence also in terms of political sensitivity:

- 1) Increasing available infrastructure and capacity for reception, staging, onward movement and integration through investment in harbours, airfields, railway stations etc. planned as ports of debarkation,
- 2) Increased protection of these capacities through prioritization of such capabilities as surface escort ships with an anti-submarine warfare capability, ground based air defence systems for the protection of various ports of debarkation etc.,
- 3) Extended prepositioning of equipment and supplies for U.S. forces in Norway (Cavas, 2015),
- 4) Increased U.S. training in Norway through improved training facilities, joint exercises etc., up to and including continuous U.S. presence by units from all services on rotation,
- 5) Increased logistic support to U.S. forces, particularly U.S. Navy, on a regional basis, independently of operations in Norway,

Of these, all points except no 2) may be categorized as logistic support, in that they include logistic elements to a greater or lesser extent. For example point no 4) may include provision of infrastructure such as barracks, mess halls and workshops as well as supporting services. The recently signed U.S.–NOR agreement covers all of the four first points (The Norwegian Ministry of Foreign Affairs, 2021). The fact that the U.S. is signing similar agreements with other Allies with an obvious reinforcement requirement in a crisis, such as Poland and the Baltic

⁸ MCPN is a bilateral agreement between Norway and USMC, signed in 2005 (Prop. 77 (2005–2006), 2006). The agreement includes amongst others locating stockpiles of United States Marine Corps weapons, vehicles, ammunition and other equipment in Norway. This is stored in six caves and at two airports in Trøndelag. Norway provide personnel for maintaining the equipment. Through MCPN Norway is also obliged to provide host nation support when receiving American military forces, and the Norwegian Armed Forces has a HNS battalion dedicated for this purpose.

republics, may be an indication that the Americans wish to have a capability to act bilaterally, independently of the political processes in NATO. This might make additional measures more relevant, dependent on what motivates allied support. The establishment of a Norwegian Joint Logistic Support Group Command for the North Atlantic Area (NOR JLSG)⁹ based on the Norwegian Armed Forces' tactical logistics command, is an example of measures as described in bullet point no 5 above.

In order to enlighten the research question, one should also look into the potential consequences of a contrary course of action, namely to reduce or remove the resources spent on these measures. Would reducing or removing logistic measures, such as availability of infrastructure, prepositioning services and U.S. training reduce the likelihood of allied support correspondingly? We will return to this issue in chapter 5.

⁹ The Norwegian Defence logistics system will be described in more detail in chapter 3.4.

2 Method

Our overall methodical approach is shown in figure 2.1. We have used a theoretical framework based on IR theories to study a potential causal relationship between logistics and the likelihood of allied support. We first deduce theoretical hypothesis on allied support based on IR theory, and then apply these hypotheses to the case of logistics in general and secondly more specifically to the case study of the Norwegian defence logistics system. As shown in the figure we have applied two analytical approaches – one narrow and one broad definition of logistics – in order to shed light on the research question.

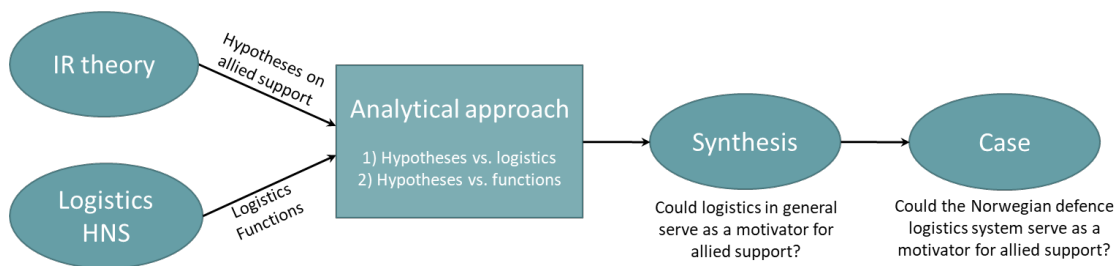


Figure 2.1 Methodological approach to the research question of whether logistics might serve as a tool for procuring allied support.

2.1 Data collection

As this report considers the potential causal relationship between an independent variable (logistics) and a dependent variable (allied support), the source material for and operationalization of each is important for our findings. The approach to understanding allied support is the subject of chapter 4. Data regarding logistics has been collected by going through existing research, governing documents, and by conducting a workshop with subject matter experts (SMEs).

2.1.1 Literature

In order to describe logistics, and in particular, the case of the Norwegian defence logistics system, as presented in chapter 3, we have consulted NATO doctrines, Norwegian government documents such as defence white papers, long term plans as well as peer reviewed literature and FFI reports on military logistics and host nation support. The most relevant documents are listed in table 2.1.

2.1.2 Workshop

A workshop was held during the initial part of this study in order to collect empirical data on the research question. The overall purpose was to critically assess four hypotheses on allied

support¹⁰ with practitioners and experts on the case of Norway's logistics system. In total six subject matter experts from NDLO, the Norwegian Joint Operational Headquarters and the Norwegian Defence Research Establishment participated in the workshop. The workshop last for 3 hours, and was carried out digitally due to Covid restrictions. The experts and practitioners were asked the following questions:

1. How plausible does it seem that a nation's logistic and host nation support capacity can influence decisions of allied support, especially in the case of the U.S.?
2. Is such a strategy feasible defence policy in Norway?
3. How important do you think logistics in itself is compared to other potential strategic measures to increase likelihood of allied support, such as training and exercises, Norwegian force contributions in international allied operations etc.?
4. In your experience, which measures will our allies be most interested in?
5. To what extent and in what way can logistics as a strategic tool be implemented through strategic agreements between NDLO and civil logistics actors?

The nature of the questions might be perceived as politically and diplomatically sensitive. As we expected that it could be challenging to get informants involved in political or strategic decision-making to talk freely, the workshop was conducted with Chatham House rules,¹¹ hence impression that during the workshop, SMEs did feel free to discuss the questions, sharing their impressions, experiences, and lessons learned.

¹⁰ The four hypotheses for what will trigger allied support and reinforcements for are inferred as part of Vårin Alme's ongoing PhD-work, and are presented in chapter 4.1.

¹¹ Under the Chatham House rule, anyone who comes to a meeting is free to use information from the discussion, but is not allowed to reveal who made any particular comment. It is designed to increase openness of discussion.

Type of document	Title	Description	Reference
Norwegian governing	Prop 73 S (2011–2012) <i>Et forsvar for vår tid</i> ; Prop 151 S (2015–2016) <i>Kampkraft og bærekraft</i> ; Prop 14 S (2020–2021) <i>Evne til forsvar – vilje til beredskap</i>	White papers proposing the long term plan for the Norwegian Defence sector	The Norwegian Ministry of Defence (2012; 2016; 2020)
	<i>Konsept for logistikk i Forsvaret</i>	Concept for logistics in the Norwegian Armed Forces	The Norwegian Defence Logistics Organisation (2013)
	<i>Direktiv for vertslandsstøtte</i>	Directive for host nation support	The Norwegian Chief of Defence (2020)
	<i>Norsk vertslandsstøttekonsept til bruk i totalforsvaret</i>	Description of HNS intended for civilian total defence actors.	The Norwegian Joint Operational Headquarters (2022)
NATO guidelines	<i>Whole of government support to the enablement of SACEUR's area of responsibility</i>	Description of NATO's enablement work intended for Allies to increase understanding across relevant government ministries	NATO (2020)
	<i>Allied Joint Doctrine for logistics – AJP 4</i>	NATO doctrine for the conduct of joint operational logistics and medical from preparation to termination	NATO (2018a)
	<i>Allied joint doctrine for host nation support – AJP 4.3</i>	A framework for the planning, coordination, and execution of host-nation support for military activities	NATO (2021a)
	<i>Allied Joint Doctrine for the Deployment of Forces – AJP-3.13</i>	Guidance to planning for operations and exercises where allied forces are planned to be deployed	NATO (2021b)
	<i>NATO Principles and Policies for Logistics – MC 334</i>	Description of NATO's principles and policies for logistics	NATO (2014)
FFI reports	<i>Hvordan styrke forsvaret av Norge? Et innspill til ny langtidsplan (2021–2024)</i>	Evaluation of alternative paths for the future development of the Norwegian armed forces	Skjelland et al. (2019)
	<i>Et troverdig alliert mottak – erfaringer fra Trident Juncture 2018</i>	Assessment of the performance of the logistics system during Trident Juncture 2018	Birkemo et al. (2019)
	<i>Vertslandsstøtte – utvikling og analyse av fire scenarioer</i>	Assessment comparing HNS requirements and Norwegian HNS capacity	Norwegian Defence Research Establishment (2021)

Table 2.1 List of documents selected for the review on military logistics and host nation support.

2.2 Theoretical framework

A theoretical framework for studying what determines allied support was developed by reviewing IR literature and deducing hypotheses from four IR schools of thought. From the

schools of thought, we have formulated four hypotheses about the conditions for allied support. Chapter 4 presents the literature and the four deduced hypothesis.

2.3 Analysis

A two-pronged approach was applied in order to analyse whether logistics can serve as a strategic tool to increase the likelihood of allied support. One approach was to break down NATO’s definition of logistics (NATO, 2021) into its five elements, listed in chapter 3.1, representing a narrow definition of logistics.

The second and broader approach to logistics was to look at all conceivable functional areas of military operations (The American Joint Chiefs of Staff, 2019)¹² as each of these functions necessarily will have a logistic aspect. Hence, we also assessed their potential to enhance the probability of allied reinforcements. By these two approaches we aim to encompass both direct and indirect strategic effects of logistics. As the fourth function, logistics, is identical to the first analytical approach, it is not further analysed in the second approach, unless we have identified differences by using the two approached.

Each approach was facilitated by a table. The table was used to systematically assess a potential causality between any of the four hypotheses presented in chapter 4.2 and each element of two different aspects of logistics in terms of their likelihood to increase the probability of allied support. A ‘+’ signifies a possible causal direct link, a ‘(+)’ signifies a possible indirect effect, whereas no mark signifies no connection between logistics and the probability of allied support. Table 2.2 illustrates the first approach, while table 2.3 constitutes the second approach. The results of the assessments are presented in chapter 5.1 and 5.2, respectively.

Logistic element					
Hypothesis	Matériel	Personnel transport	Facilities	Services	Medical/ health
Interest					
Values					
Enlightened self-interest					
Identity					

Table 2.2 Approach no. 1 – Hypotheses of allied support applied to the five elements of logistics as defined by NATO.

¹² The military functions are numbered 1–9 and encompass: Personnel/exchange/education, intelligence, joint operations, logistics, joint plans, C4 (command, control, communications, computers), training/exercises, finance and civil affairs/STRATCOM, respectively.

Function									
Hypothesis	Personnel/ exchange/ education	Intelligence	Joint operations	Logistics	Joint plans	C4	Training/ exercise	Finance	Civil affairs/ STRATCOM
Interest									
Values									
Enlightened self-interest									
Identity									

Table 2.3 Approach no. 2 – Hypotheses of allied support applied to the logistic aspects of all functional areas of military operations.

2.4 Peer review

We have conducted a two-step peer review process with key informants, selected on the basis of both logistics and allied support. Based on the case study in question, that is: i) knowledge of the Norwegian defence logistics system, ii) knowledge of the Norwegian HNS system, iii) insight into the defence policies of Norway and its allies, or iv) expertise on alliance behaviour, especially allied reinforcements. The peer review consisted of one workshop, as described above, and one round of traditional peer review, i.e. having experts both in the Norwegian Armed forces and researchers read and comment on our work. In selecting peers that were either well acquainted with our case, the research question in itself, or both, we were able to gather valuable perspectives on our research question (Bryman, 2004, pp. 319–320).

2.5 Rationale, scope and limitations

The main rationale for selecting Norway as a case is the fact that Norway has, both conceptually and capacity-wise, implemented changes during the last decade that might be significant to the question of allied support. Hence, the NDLO was interested in studying whether these changes could affect the likelihood of allied support. Our case selection might also be interesting and valuable in its own right. As researchers of Norwegian security and defence policy we are uniquely situated – both in terms of knowledge, resources, and access – to provide a thorough study of Norwegian defence logistics.

To our knowledge, no previous research indicates that logistics affect allied support. A theoretically guided case study was therefore considered to be well suited for exploring potential causal mechanisms. However, this methodological approach comes with certain important limitations. We are not trying to conclude on whether or not logistics can in fact increase the likelihood of allied support. Our study may, on the other hand, serve as the foundation for such inquiry. Our focus here is rather to deduce hypotheses from four of the main branches of IR theory to explore the possible causality between logistics and allied support, and

applying these hypotheses to the case of the Norwegian logistical system in order to illustrate *the ways* in which logistics could possibly increase the likelihood of allied support.

The theoretical hypotheses presented in chapter 4 structure the investigation, as they focus on some parts of reality and ignores others, all dependent on what the theory prescribes (Levy, 2008, p. 4). Factors that are largely omitted in this study is, for instance, the potential effect of personality, leadership style, and personal dynamics. It is important to note that the hypotheses represent ideal types, meaning that they represent a stylized version of what *drives* international relations. In other words, the question of logistics as a determinant of allied support is investigated in light of what the hypotheses claim to fundamentally drive decisions of allied support. We study whether logistics can plausibly reach this level of importance, meaning that other, secondary, tertiary, considerations – factors that are not part of triggering the decision of allied support but that might matter once the decision is made – are beyond the scope of this study. Such questions should, however, be explored by future research.

In defining ‘allied support’ as political-military assistance from allies in the event of an attack, in fulfilment of alliance commitment, we are in line with the operationalization of “alliance reliability” applied in the IR field of alliance research (Gartzke & Gleditsch, 2004; Henry, 2020; Leeds et al., 2000). However, as pointed out by Sunniva Mowatt Storm (Awaiting publication), this definition has a number of weaknesses, not the least of which is that it does not cover peacetime support, which might deter conflict – which is what alliances are often designed to do. Including peacetime support, then, might be highly relevant to the question of causality between logistics and allied support, and is suggested here as a topic for future research.

Further, a single case study is a research design that is well suited to investigate possible causal mechanisms in the case at hand. As such, it is suitable as a methodological approach for this study, as our purpose is a deeper look at the Norwegian case and how the different theoretical perspectives explains this case. A single case allows for a thorough, detailed investigation of causal relations, and ensures – if done well – good internal validity, meaning that the links of causality that are proposed are actually valid (Gerring, 2007, p. 5). But the secondary purpose of a single case is to tell us something important about the phenomenon that the case is an example of. In other words, the case study could be representative of something more. The Norwegian case may provide insight into the question of how logistics in general might increase the likelihood of allied support, by studying a case of the logistic policies of a small state dependent on allied support. Until the findings from the case study is substantiated by further research, perhaps in particular on comparative cases, we will not know whether or not the Norwegian case is indicative of a larger universe of cases.

3 Logistics and Host Nation Support

In order to assess whether various aspects of logistics and host nation support (HNS), directly or indirectly, can be measures for enhancing the probability of allied support, this chapter gives a general introduction to logistics and host nation support, explains the importance of such support in military operations, and presents the Norwegian Defence logistics system.

3.1 Definitions and clarifications

The term “logistics” originates from a military context. Its original meaning was any aspect that supports military operations and sustains the troops who take part in them, regardless of the operational environment (Kress, 2016, p. 8). Despite its origin, however, civil logistics have been much more studied than military logistics. The range of definitions of logistics and supply chain management, therefore, are mostly found in the civil logistics literature (Larson & Halldorsson, 2004). In his book *Logistics & Supply Chain Management*, Martin Christopher (2011, pp. 2–3) defines logistics as “the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organisation and its marketing channels in such a way that current and future profitability are maximised through the cost-effective fulfilment of orders”. In other words, logistics essentially seeks to create a plan for the flow of products and information through a business or an organisation, which in our case is the military.

Supply chain management is necessary in order to obtain both effective and efficient logistics, as it links and coordinates the processes of other entities in the pipeline, i.e. suppliers and customers, and the organisation itself. One goal of supply chain management might for instance be to reduce or eliminate the buffers of inventory that exist between organisations in a chain through sharing information on demand and current stock levels. Supply chain management involves a significant change from the traditional arm’s length relationships between buyer and supplier where one part owes no special obligation to the other. The focus of supply chain management is on cooperation and trust and the recognition that, if properly managed, the ‘whole can be greater than the sum of its parts’. Identifying potential vendors, conducting negotiations with them, and then entering into supply contracts with these vendors – the so-called sourcing process – therefore becomes an important factor of the supply chain management. During the last decade this connection is taken into account in the Norwegian long term defence plans (Prop. 14 S (2020–2021), 2020; Prop. 151. S (2015–2016), 2016; Prop. 73 S (2011–2012), 2012) and implemented by introducing civil commercial strategic partners in the military logistics system, and as part of the Norwegian total defence. How this is organized in the Norwegian defence logistics system, will be explained in more detail in chapter 2.4.

Modern logistics processes rarely follow a single route, and look more like a network. A definition of supply chain management could therefore be “A network of connected and interdependent organisations mutually and co-operatively working together to control, manage and improve the flow of materials and information from suppliers to end users” (Aitken, 1998).

Having presented logistics and supply chain management from a civil business perspective, we now consider the military perspectives of these terms.

Moshe Kress, a professor of operational research at the Naval Postgraduate School (NPS) in U.S., presents a generic definition of military logistics as “a discipline that encompasses the resources that are needed to keep the means of the military process (operations) going in order to achieve its desired outputs (objectives). Logistics includes planning, managing, treating and controlling these resources” (Kress, 2016, pp. 1–3). Logistics does not include combat capabilities, although all combat units, and military units in general need logistics capabilities. In this report, we will use NATO’s definition of military logistics, as this definition, in its most comprehensive sense, includes a multiplicity of resources and services (NATO, 2018a) important for host nation support:

Logistics is the bridge between the deployed forces and the industrial base that produces the weapons and materiel that the forces need to accomplish their mission. NATO therefore defines logistics as:

- 1) Design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel;
- 2) Transport of personnel;
- 3) Acquisition, construction, maintenance, operation and disposition of facilities;
- 4) Acquisition or furnishing of services;
- 5) Medical and health service support.

In this definition, both supply chain management and sourcing are subsets of the logistics activities. In this study we also include planning of logistics in the definition of logistics. A number of NATO nations, however, do not consider medical and health service support to be a logistic function.

NATO’s definition of the military logistics system includes a great number of different products and product groups, ranging from drinking water to complex fighter airplanes, and services such as basic camp management and medical or technical specialist services. Ideally the logistics demands could be calculated, as typical logistic parameters and problems include quantitative parameters: Examples of such parameters are volume of fuel, tonnage of ammunition and number of spare-parts, time parameters such as force accumulation time and order-and-ship time and infrastructure parameters such as the number and size of ports of debarkation by sea, air or railway. These parameters can be used for forecasting attrition, projecting demands for resources and optimization of logistics processes such as transportation, inventory taking and storage (Kress, 2016).

Although the ultimate responsibility for logistic support of national forces lies with the respective nations, in an allied operation, the alliance also has a collective responsibility. Within NATO, the collective responsibility for logistics is described as “The set of NATO’s and

nations' individual and largely complementary obligations to cooperatively organize and deliver the overall logistic support of NATO operations, taking into account one another's requirements and constraints" (NATO, 2018a, p. 18). When planning for deployment and the consecutive enabling of allied reinforcement, it is therefore necessary to take into account the fact that some nations may have limited logistic capabilities. In the logistic support of allied forces, therefore, HNS is a key feature (NATO, 1997). NATO (2021) defines HNS as:

[...] civil and military assistance rendered in peace, crisis or war by a host nation to NATO and / or other forces and NATO organizations that are located on, operating on / from or in transit through the HN's [host nation] territory. As HNS may not be limited to military assistance, the appointed HN authority remains responsible for the internal HN coordination to ensure that HNSA [HNS arrangements] are endorsed at the required level.

The purpose of HNS is to enable sending nations to operate for extended periods away from national sources of support. Furthermore, it aims to provide effective support to NATO military activities and to achieve efficiencies and synergies through the best use of all of the host nation's resources. HNS is crucial in order to obtain an efficient and rapid allied reinforcement, not least for its strategic deterrence effects (McInnis & McPartland, 2021; NATO, 2020).

Within NATO, sending nations are responsible for planning and executing the deployment and sustainment of their own forces. These obligations extend to medical, engineering and infrastructure requirements. Sending nations are responsible for providing this support by both national organic capabilities and capacities, or through establishing various national or multinational host-nation support arrangements (NATO, 2021). For instance, several NATO-countries have agreements with Norwegian commercial suppliers of HNS on issues such as transport and fuel.

Allied reinforcement of a geographical area has certain features with regard to the HNS needed. Whereas sufficient infrastructure in relevant areas is particularly important throughout the reception of allied forces, maintenance and supplies become more important for the sustainability of a military operation. Still, unexpected changes often occur during an on-going operation. These are changes that affect the logistic demand, and that the logistics system must handle in order to retain the required (operational) capabilities.

Although logistics is a major part of HNS, HNS also includes a range of non-logistic resources. Military non-logistic resources includes amongst others force protection, legal support, host units and information communication technology, whereas resources like electricity and customs support are examples of civilian non-logistic resources (NATO, 2020). This report will however focus on the parts of HNS which includes logistics.

3.2 The military effect of logistics

Throughout history wars have been won and lost in part because of logistics strengths and capabilities – or the lack thereof.¹³ The purpose and desired effect of military logistics is to facilitate movement and fire, deploy and position human resources, treat and evacuate casualties and supply food and other personal needs, in order to guarantee the success of operations and missions (NATO, 2018a), in accordance with the definition presented in the previous chapter. In the end, logistics is foundational for all military activity. A military organization requires logistic support to be available in the necessary quantity and quality, when and where it is required and throughout the full spectrum of operations and missions, in order to obtain both the required readiness and the battle sustainability.

Logistics also has a psychological function, for instance by affecting the morale of the forces. As a provider of military resources, logistics plays an important role in unifying the force, preserving its motivation and strengthening the moral authority of its commanders (Kress, 2016, pp. 1–3). This was for instance reported to be the case during the initial phase of Russian invasion of Ukraine in 2022, where lack of logistics, among other things, seems to have affected the morale of the Russian soldiers (Listou & Ekström, 2022).

Hence, creating the necessary conditions and providing the required support for a military deployment and/or operation is a much broader challenge and task than just military logistics; it goes well beyond the military domain, and requires support from several stakeholders and actors. In NATO’s view, cooperation and coordination across the full spectrum of logistics, including between the civilian and military sector in a “whole of government”-approach is therefore favourable (NATO, 2020). This is particularly important in connection with large military operations, which allied reinforcements may potentially become. Summarized, logistics has both physical and psychological effects that contribute to enhancing a military forces’ operational capability.

3.3 Dependence on civilian resources for efficient logistic support

From the North Atlantic Treaty follows each nation’s responsibility to obtain a capability that enables them to receive and support allied reinforcements, as well as meeting certain national requirements. Nations must maintain the capacity to support themselves in a crisis and, in addition, uphold a capacity to move and sustain military personnel and equipment over and above the ability which can be achieved with military resources alone (NATO, 2018a). Consequently, the nations’ ability to prepare for crisis, to support military deployment and to resist an armed attack depends heavily on the state of their infrastructure and the availability of

¹³ It has for instance been argued that the defeat of the British in the American War of Independence can largely be attributed to logistics failure (Bowler, 1975). According to Bowler, the British Army in America depended almost entirely upon Britain for supplies. At the height of the war there were 12,000 troops overseas and for the most part they had both be equipped and fed from Britain. For the first six years of the war the administration of these vital supplies was totally inadequate, affecting the course of operations and the morale of the troops. An organisation capable of supplying the army was not developed until 1781 and by then it was too late.

both public and private civilian resources as well as military resources (Birkemo, et al., 2022). Additionally, the armed forces' dependency on civilian resources to maintain operational effectiveness during a military operation increases with the duration and extent of a military operation (NATO, 2014).

In countries with a free market economy and a well-developed private sector, the ownership and operation of public infrastructure and services has shifted steadily into the hands of private companies during the last couple of decades. Such companies therefore play a crucial role in national preparedness. Current estimates indicate that private companies transport around 90 % of NATO's supplies and equipment and provide about 75 % of host nation support (NATO, 2022). Hence, military – and civilian – readiness depends on effective cooperation with the private sector. Consultation with both publicly controlled infrastructure owners and operators as well as private partners is therefore essential. NATO underlines that the necessary arrangements should be established before a crisis develops.

3.4 The Norwegian Defence Logistics System

The Norwegian defence logistics system has undergone major changes over the past 25 years. A centralized, tri-service logistics organization came into being only in 2002, before which each of the three services, land, air and maritime defence forces, was supported by its own logistic command (Bråten, 2007; Prop. 55 (1999–2000), 2000, p. 55). Concurrently the responsibility for facilitating, building, managing and disposing property for the Armed Forces¹⁴ was separated from the Defence organization, established as the Norwegian Defence Estates Agency and placed directly under the Norwegian Ministry of Defence (MOD). Similarly, in 2016 parts of the Norwegian Defence logistics organisation covering investments,¹⁵ was separated from NDLO, established as the Norwegian Defence Materiel Agency and organized directly under MOD. Over the same period, extensive reduction in personnel and outsourcing of logistic functions such as transport and infrastructure has taken place, as a consequence of the dismantling of a much larger, mobilization-based defence organization than today's comparatively small force structure. This chapter describes our case, the current Norwegian defence logistics system and discuss the possible level of generalization based on the case.

3.4.1 Characteristics of Norwegian defence logistics

During the last decade a civil military logistics system of the Norwegian Armed Forces has been developed in order to meet increasing requirements due to changes in the security situation and hence required changes regarding reaction time, sustainability and resilience (Prop. 14 S (2020–2021), 2020; Prop. 151. S (2015–2016), 2016). A part of this picture is the increased focus on allied support and Norway's capability to receive and support allied reinforcements. This

¹⁴ This covers point 3 of NATO's logistics definition: Acquisition, construction, maintenance, operation and disposition of facilities.

¹⁵ This covers point 1 of NATO's logistics definition: Design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel.

capability depends heavily on the national logistics HNS capacity, a capacity which probably will exceed the logistic needs of the Norwegian Armed Forces only.

At the same time there is little flexibility within decided economic constraints for the Armed Forces to invest in dedicated facilities to the extent needed in the most demanding allied scenarios. Consequently, the logistics system must be *scalable*, meaning that the logistics system is able to increase to the necessary capacity in accordance with preparedness requirements, as illustrated in figure 3.1. The Norwegian Armed Forces has therefore based their modernised logistics system on increased cooperation and integration with private companies, so-called strategic partners¹⁶. Through comprehensive framework agreements this solution gives access to considerable logistic capacities within the economic constraints, and covers gaps that previously have been identified (Prop. 73 S (2011–2012), 2012). Furthermore these agreements have contingency clauses that ensure access before the Norwegian contingency legislation has been implemented, as indicated in figure 3.1. These capacities encompass both infrastructure, services and supplies, as described in more detail below. A prerequisite for becoming a strategic partner is that the company is Norwegian or has Norwegian owners and that it is solid with regards to important factors such as capacity, competency and liquidity.

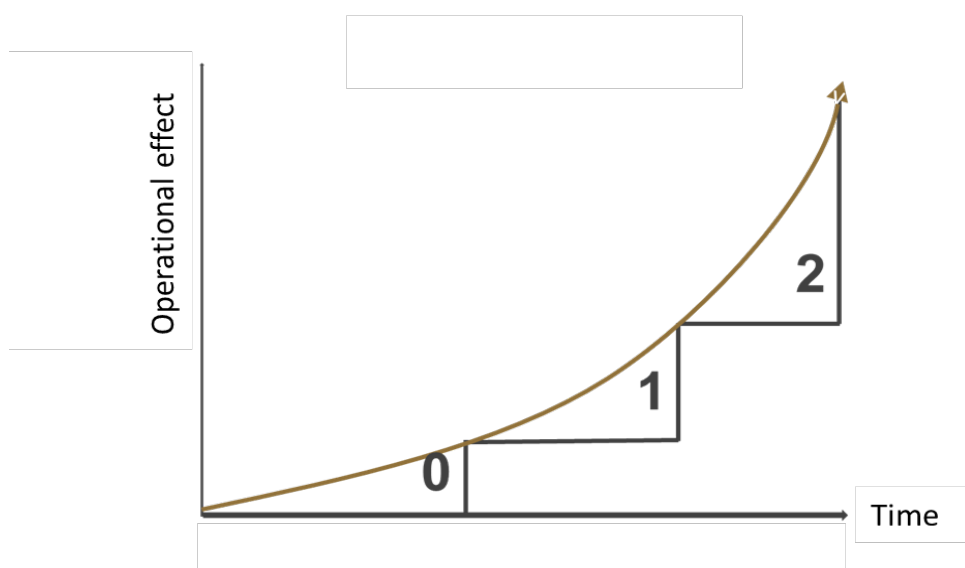


Figure 3.1 Strategic agreements are made in order to obtain a scalable logistics capacity that are designed to deliver the supplies and services needed to give an operational effect in all three phases (0–2) of a crisis. Contingency clauses ensure access to these resources before Norwegian Emergency Preparedness Act has been implemented. Phase 0: Peacetime, in which no Norwegian contingency legislation is implemented; phase 1: National mobilization; phase 2: Allied reinforcement.

¹⁶ The term “readiness partner” is recently introduced about some of these strategic partners. Due to the similarity of these partnerships, the current report will use the term strategic partner about both types of partnerships.

The strategic partner, Grieg Strategic Services, writes on their website¹⁷ that they support the Armed Forces and allied forces training in Norway during port operations, for instance during reception and dispatch operations by sea, air and rail, support that also includes a range of affiliated services. Until July 2022 WilNor Governmental Services AS, a company controlled by Wilh. Wilhelmsen Holding ASA that provides military logistics services both in Norway and internationally, was one of the major strategic partners of the Norwegian Armed Forces.¹⁸ According to their own website,¹⁹ the support encompass a range of services and infrastructure, including more than 10 naval bases covering the coast of Norway. The agreement with WilNor also included host nation support such as camps, catering and various kinds of equipment. Key personnel from these companies were collocated in so-called coordination cells with the NOR JLSG in order to increase a joint situational awareness on logistics requirements and capacity.²⁰ Furthermore, other strategic partners support the Armed Forces with a broad variety of services and supplies, such as transport services, maintenance, spare parts, food, field rations and ammunition.

The aim of introducing strategic partners in the logistics system of the Norwegian Armed Forces is an increased and scalable access to logistic capacity based on civilian goods and services. The NDLO argues that this allows the Armed Forces to prioritize military logistics resources in areas and operations deemed unsafe for civil contractors. In order to secure timely and sufficient deliveries at the right place, the partnership contracts define supply and/or service requirements regarding both readiness, volume and location. Another important factor to secure deliveries in peace, crisis and war is the use of Norwegian companies, which are covered by Norwegian legislation, such as the Norwegian Emergency Preparedness Act. In accordance with this, these companies does not have a force majeure clause (Birkemo et al., 2019).

As indicated above, the ability to provide and execute logistics HNS for allied forces is an important task for the Norwegian Armed Forces. In the Norwegian defence concept, “bilateral support and reinforcement arrangements with close allies” is one of “three lines of main effort” (The Norwegian Ministry of Defence, 2020, p. 4). In addition to scalability, this requires a logistics system with the ability to provide support in a wide range of operations. The scalability has increased considerably after establishing strategic partnerships with more than ten companies (Svanes, 2022). Evaluation of the logistics HNS given during Trident Juncture showed that the capacity of the logistics system was either sufficient or more than sufficient, and that 99,5 % of the sending nations’ orders were delivered (Birkemo et al., 2019).²¹ In addition quantitative studies based on recent scenario analyses show that within several logistics resources the current logistic system, built on strategic partnerships, is able to support an allied

¹⁷ This is described in more detail at https://grieglogistics.no/core/grieg_strategic_services/.

¹⁸ The framework agreement has expired, and will be replaced by new agreements. A market investigation was dispatched in May 2022 at <https://www.doffin.no/Notice/Details/2022-375925>.

¹⁹ This is described in more detail at <https://www.wilhelmsen.com/other-services/wilnor-governmental-services/>.

²⁰ WilNor’s coordination cell was closed down on June 30th 2022.

²¹ Calculations are based on the total value of the orders that were delivered.

reinforcement of up to 2.5 times the size of the forces that participated in the NATO exercise Trident Juncture 2018 (Norwegian Defence Research Establishment, 2021).²²

Previous research has shown an increased access to logistics resources, at the same time as demonstrating certain pitfalls related to depending on commercial companies. The commercial logistic resources are, not evenly distributed in Norway. While the main part of resources such as transport (88 %), infrastructure (77 %), maintenance (82 %) and stored food (79 %) are in the southern part of Norway, the northernmost counties only has between 3 and 8 % of these nationally available commercial resources (Birkemo et al., 2019). Due to Birkemo et al., therefore, it is still necessary to further develop the capacity in the northern part of Norway.

Furthermore the conceptual changes of the Armed Forces logistics system have introduced some critical vulnerabilities (Birkemo et al., 2021). Firstly, the logistic value chains has become increasingly complex, which may affect the security of supply, as seen both during Covid-19 and after the invasion of Ukraine (Smid, 2022). As a consequence, the strategic partner may not be able to deliver in accordance with the contract. Secondly, since there are few suppliers of some of the major facilities there is a risk of a lock-in effect, which both may increase the prices as well as lead to competitive benefits for certain companies. Thirdly, by outsourcing logistic tasks, critical skills and competency in important areas such as movement and transportation may be reduced or lost within the Armed Forces, which may have operational consequences. A fourth but still very important vulnerability is the potential lack of or weak understanding of security among civil actors who are not used to handling information related to national security. The Armed Forces must therefore be aware of – and handle – the vulnerabilities introduced by these major conceptual changes, in order to obtain a credible defence logistics system.²³

An increased Alliance adaptation of the Norwegian Armed Forces was approved through the current long term plan for the defence sector (Prop. 14 S (2020–2021), 2020). It was decided that the tactical command of the Norwegian defence logistics, under NDLO Command, would constitute a framework for a Joint Logistic Support Group Command (JLSG), NOR JLSG, for the Joint Forces Command Norfolk (JFC NF).²⁴ Since 2020, a NATO-adapted logistics command structure and a JLSG-capacity has been established.

A technical agreement between NDLO and JFC NF regarding NOR JLSG was signed early in 2022. The NOR JLSG will be a static headquarters tasked to plan and coordinate third line logistics in the operational environment. It includes, but is not limited to, points of debarkation, lines of communication, logistic bases, convoy support centres, staging areas and forward logistics sites (JFC Norfolk Public Affairs Office, 2022; The Norwegian Armed Forces, 2021). According to NATO this agreement “will enable JFC Norfolk to establish a Joint Logistic Support Network (JLSN) with NOR JLSG that will strengthen the logistics required to execute

²² These analysis were performed while WilNor still was a strategic partner.

²³ FFI is currently mapping opportunities and limitations of strategic collaboration between the defence sector and private companies.

²⁴ JFC NF was established in 2018 in order to secure the High North. 2nd Fleet is the American counterpart to the JFC NF (NATO, 2018b).

NATO activity in the High North”. Concurrently the collaboration with JFC NF has increased in order to achieve joint situational awareness, knowledge exchange, improve logistic interoperability and support in establishing NOR JLSG. As a result NOR JLSG localized a liaison officer in JFC NF. The framework agreements between the strategic partners and the Norwegian Armed Forces may potentially be extended to support of American and allied operations in the High North.

3.4.2 The issue of generalization

This study takes a deeper look at the civil military logistics system of the Norwegian Armed Forces as a case, or an example, in order to shed light on the question of whether and how logistics might increase the likelihood of allied support. Below we will discuss whether the Norwegian case is a representative case of a small state NATO member, or alternatively, whether this particular case is such that our conclusions are valid with respect to the Norwegian logistics system only.

Certain aspects of the case studied are unique for Norway and Norway’s situation. Compared to other European NATO members, the use of strategic partners which are integrated in the military logistics system, is unique. The strategic partners have a central role in providing a range of HNS-related services and supplies during both reception, staging and onward movement, as well as during exercises and operations. This includes reception services at sea and airports of debarkation, catering, transport, supplies, infrastructure such as barracks and sea ports. The Norwegian model does have similarities with the American model, where private companies are even more closely integrated in the military sector. Generally, a more common solution is the arms length’s relationship between civilian suppliers and military organizations.

Norway might also be representative of small allied states that have made the conscious policy choice of depending on an alliance for its security and defence, and whose defence policy therefore has two primary goals: using the alliance for deterring aggression, and if that fails, ensuring that its defence will be a collective effort. Thus, studying Norway’s policies of, and concepts for, logistics and the actual logistic solution developed might be instructive of a broader class of cases. The case of Norwegian policies of logistics in a defence context might also shed light on the defence and logistical policies of the NATO alliance – which might again provide insight into a broader phenomenon.

Although Norway is a small country, she is the eighth largest shipping country globally for total carrying capacity, and controls over 3.1 % of the carrying capacity, with more than 2,000 vessels worldwide (United Nations Conference on Trade and Development, 2020). In comparison, the U.S. controls approximately 2.9 % of the global carrying capacity. Amongst NATO members, only Greece and Germany have a larger capacity than Norway. The capacity and knowledge about sea cargo must therefore be considered relatively unique for a small country (although comparable to Greece). A consequence of the Norwegian capacity is among others that Norway’s capacity to receive allied reinforcements across the sea is particularly robust compared to most other NATO members.

Norway's location on the Russian border is not unique within NATO. Also, Norway is one of several states that have developed an increasingly alliance-integrated defence structure (Pedersen, 2018). Norway may, however, have implemented more measures than other small states during the last decade, in particular by increasing her HNS capability both with regards to receiving and supporting allied reinforcements logistically. Furthermore the Norwegian logistics HNS has been extensively tested through two major military exercises the last few years, namely the NATO exercise Trident Juncture 2018 and the Norwegian exercise Cold Response 2022, with 50000 and 30000 participants, respectively.

As described in the previous chapter, the Armed Forces' Defence Logistics Organisation has recently established a JLSG framework for NATO and the U.S.^{25,26} NOR JLSG hence can operate as a tactical unit within the command structure of NATO.²⁷ Although this way of organizing the tactical logistics command is particular within NATO and based on the Norwegian defence logistics system, this particular part of the logistics system also represents NATO in general. As an extension of this, the commercial strategic partners integrated in the logistics system may potentially become part of the allied logistics system (as suppliers), and the case hence becomes representative for NATO as such.

As this report presents a single case study with the goal of illustrating theoretical assumptions in practice, further research is needed in order to settle the question of generalizability. Our findings might be generalizable to a universe of small states, states in general, NATO, or they might be products of conditions that are unique to the Norwegian case. We suspect, however, that the case of Norway is in fact representative of (small) states that are dependent on an alliance and on specific alliance partners

Having introduced logistics, host nation support, and the case of the Norwegian defence logistics system, we now move on to the question of what motivates allied support.

²⁵ Allied Joint Publication-4.6, the NATO doctrine which covers the JLSG defines JLSG as a joint, force generated, deployable logistic capability that provides command and control of assigned logistical forces from the theater to tactical levels in support of a joint task force made up of NATO members, partners, and non-NATO nations.

²⁶ A more detailed description of JLSG is given by Aaron Cornett (2020).

²⁷ NOR JLSG can also become a tactical unit within the tactical command structure of the U.S. 2nd fleet.

4 Theoretical Framework

Within International Relations (IR) literature, research specifically tackling the question of what determines the provision of allied support is relatively scarce. Every one of the schools of thought presents general theories on how international politics functions – how it is structured, who the actors are, what drives state behaviour, what creates conflict, and what checks it. From these presumptions, we can deduce implications for the question of such support.

In this chapter we will first explain the logic behind each of these hypotheses and how they tie in with the larger theoretical traditions of IR. It is important to note early on that the following presentations are stylized, simplified categorizations – ideal types – of what are in reality nuanced, contested, and complex research traditions. However, such theoretical simplifications are useful for analysis, as it allows us to tease out the most essential distinctions between theoretical predictions, and then apply them to empirical material.

4.1 What determines allied support: Four hypotheses

Four hypotheses for what will trigger allied support and reinforcements for are inferred:

1. The *interest* hypothesis posits that

allied support is likely if it is in the interest of its strongest and most influential members to give such support, interest being driven by requirements of power, security and survival.

2. The *values* hypothesis predicts that

allied support is likely if the context demands such support, meaning that it is mandated by international law and fosters values such as human rights, democracy, and peace.

3. The *enlightened self-interest* hypothesis argues that

allied support is likely if member countries consider the gain to outweigh the cost of deploying.

4. Lastly, the *identity* hypothesis holds that

allied support is likely if there exist deep bonds of identity between the members of the alliance, where members consider themselves part of a community of which the adversary is an enemy.

These hypotheses belong to different research traditions within IR theory. While they all agree that international politics is fundamentally anarchic – it lacks a central authority and a monopoly on violence – they disagree on what this anarchic structure looks like, and what it implies for

international relations. This disagreement of the structure of international relations and what it implies is in many ways the root of the disagreement on the matter of allied support. Before moving on to discussing the case of the Norwegian logistics system in terms of the four hypotheses, we will give a short outline of how the hypotheses tie in with larger theories.

4.1.1 Interest

Interest as the fundamental driver of international relations is a premise most commonly ascribed to the realist paradigm.²⁸ The state actors of international politics are predestined to constantly pursue power and self-interest, as they will never be completely safe (or, perhaps more precisely, they can never be certain that they are safe). Due to the anarchic structure of international relations, self-preservation and security will never be assured, hence it must incessantly be safeguarded and defended. While some conclude that this incentivizes states to act in a way that ensures balance of power in the international system (Morgenthau, 2006; Walt, 1987), others postulate that states will forever aspire to maximize their power at the expense of others (Mearsheimer, 2014). As such, the anarchic structure embodies an element of tragedy which permeates the entire international political domain.

Most fundamentally, this hypothesis is based on the assumption that states act according to what favours their interests in the international system, and such interests are often viewed in material, power-related terms. Accordingly, alliances will be entered into and upheld if the alliance favours the member states' interests. If not, the member state will leave the alliance, or fail to live up to its alliance promises (Leeds et al., 2000; Mearsheimer, 2014; Morgenthau, 2006; Schroeder, 2004; Waltz, 1979; Weinstein, 1969).

4.1.2 Values

The presumption that international politics might not merely be interest-driven, but also influenced by values – and that in fact, interests and values can overlap – is often associated with the liberal school of thought in IR theory. In this view, the anarchic structure of IR does not mean states are bound to endlessly compete for security and power. Rather, states can create what is in essence an overarching international state, and thus compensate for the original absence of a central power. The way this can be done is by cooperating with each other on the basis of certain universal values: freedom, peace, the rule of law, human rights, and democracy. In fact, cooperation is itself a value. Cooperation can create an international system that is rules-based, and thus also stable and peaceful, they argue.

Classical liberalists tend to view the world as developing progressively: it is slowly moving towards the fulfilment of universal ideals. Given time, the world will therefore become more peaceful, as more democracies will be formed – a condition called democratic peace (Doyle,

²⁸ There are, of course, significant differences between realist traditions such as classical realism, neo-realism, and neo-classical realism. Moreover, not every interest-oriented explanation belongs to the realist paradigm, as is clear by this report's classification of "interest" and "enlightened self-interest" as two different theoretical hypotheses. The latter belongs more to the neo-liberalist tradition. For a thorough outline of the similarities and differences between neo-realism and (neoliberal) institutionalism, see Hellmann & Wolf (1993).

1997). War, according to this theory, is fundamentally uncivilized, and will only occur as long as there are uncivilized (i.e. undemocratic) states in the international community.

Cooperation among states, for instance on trade, can disclose stable harmonies of interest as opposed to the temporary, shifting, competing interests of power politics. For such cooperation to occur, states should support a rules-based international order, where might is not right – where states bind themselves to certain norms and regulations, and to an international law (Kant, 2017). Thus, the state’s reputation – whether it commits to and upholds international norms, whether it keeps promises, etc. – matters in international affairs (Brewster, 2010). The act of committing to an alliance, then, might in itself increase the probability that the state might come to its allies’ defence.

4.1.3 Enlightened self-interest

Proponents of the hypothesis that enlightened self-interest drive state behaviour are often more pragmatic in their approach, typically linked to neorealist, neoliberal, rationalist, or institutionalist explanations in IR theory. In this approach, states are driven by interest, but a more sophisticated form of interest, not solely based on power aggregation and the scramble for security and survival. In this view, cooperation, trade, and peace are desirable and possible – but in contrast to the classical liberalist school of thought, shared values are not regarded as a condition for cooperation and peace (Keohane, 2005).

States, per this theory, are enlightened. This implies that they will abstain from going to war, since war is obviously senseless and not in anyone’s interest – it is, in short, bad for business, irrational and a thing to be avoided. If, in spite of this, war breaks out, it must be as a result of failed negotiations due to misperceptions, miscalculation, lack of information, or domestic factors on which it might be difficult to compromise²⁹ (Fearon, 1995; Jervis, 1976). Such failures do, however, happen. In fact, a thesis often adopted in this theoretical paradigm is that miscalculations of the costs of war is itself a common cause of war (Freedman, 1994). States’ tendency to underestimate the costs of military action leads them to make faulty cost-benefit calculations, resulting in actions they would not have taken had they understood the real costs of war. One example of this logic is how Russia apparently overestimated how easily and quickly they could achieve their political goals in Ukraine, underestimated Ukraine’s ability to exert military resistance, and, lastly, underestimated Western unity and the West’s willingness to provide arms assistance to Ukraine (Åtland, 2022). In sum, the hypothesis of enlightened self-interest holds that the expected costs of war itself helps determine whether or not allied support will be given.

As indicated by the example above, the cost-benefit calculus does not merely consist of numbers and money – costs could for instance be loss of life, where one lost life is considered one too many, and benefits could be construed as freedom, meaning the state’s perception of

²⁹ Fearon (Fearon, 1995, p. 382) terms this “issue indivisibility”, which “could in principle make war rational for the obvious reason that if the issue allows only a finite number of resolutions, it might be that none falls within the range that both prefer to fighting”.

decreases or increases in its political room for manoeuvre. Moreover, in this school of thought, institutions (including alliances) can contribute to a predictable and mutually beneficial international environment. As such, some additional costs can be acceptable if it can help preserve an institution:

neoliberals argue that international institutions can often overcome the basic obstacle to international cooperation, claiming that states attach great importance to the existence and functioning of international institutions and try to preserve them even when this implies some opportunity costs (Hellmann & Wolf, 1993, p. 7).

In the end, it is up to each state to determine what goes into its cost-benefit analysis, but per the logic of enlightened self-interest, monetary or material cost is one such factor.

4.1.4 Identity

The notion that identity matters in international politics is related to the constructivist paradigm in IR theory, emphasizing the importance of ideas, identity, and worldview – *Weltanschauung*. Although they agree that the structure of the international system is anarchic, they do not accept that this has a doomsday effect on international politics. Rather, anarchy becomes “what states make of it” (Wendt, 1999). Alexander Wendt, the man behind this phrase, has written that the international political system is a social phenomenon. It is not something external that the states will simply have to deal with by compensating for constant insecurity through power balancing strategies. Rather, the system is dynamic, fluent, and constantly shaped by the actors themselves. Thus, the world order and the conflicts states find themselves embroiled in, are things of their own creation.

The constructivist perspective allows for variations in the system, not only from one period to another, but from one international relation to another. In other words, while one state might have a relationship to another state of distrust, uncertainty, and fear, that same state’s relation to other states might be completely different, characterized by solidarity, kinship, shared values, and trust. Different societies will see other societies as in- or out-groups, considering themselves as similar to some and different from others – based on ideas, identity and norms.

If actors in the international system behave as if they are in an international system of adversaries, where self-interest and self-help wins the day, they contribute to upholding this system. Conversely, if they view the international system in more trusting terms, and behave accordingly, they can contribute to a system of mutual trust, where states are freed of their self-help orientation, meaning that they can make decisions on the basis of other factors than pure self-interest. As Wendt has written (somewhat crudely summarized), the Cold War could have been over in the twinkling of an eye had the leaders of the U.S. and the Soviet Union woken up one morning and decided to end their confrontation:

[S]ocial structures exist, not in actors' heads nor in material capabilities, but in practices. Social structure exists only in process. The Cold War was a structure of shared

knowledge that governed great power relations for forty years, but once they stopped acting on this basis, it was "over" (Wendt, 1995, p. 74).³⁰

Conflicts and their dynamics are not predestined, but generated continually by the participants within the system. These participants are not exclusively states, but also actors like international organisations and institutions. If war breaks out, it stems from a dynamic between different societies or groups which see themselves as being in conflict with each other, and acts accordingly. Thus, alliances are products of such social groupings. The more allies identify with each other – the stronger their bonds of solidarity – the higher the likelihood that they will support one another.

5 Logistics and allied support

We now turn to the assessment, by applying the hypotheses to logistics in general and to the case of the Norwegian defence logistic system in particular. As described in chapter 2.3, two analytical approaches are used, to assess if and how logistics might increase the likelihood of receiving allied reinforcements, and hence be a strategic tool in its own right.

5.1 Approach 1 – Logistics as defined by NATO

The first analytical approach consists of deconstructing NATO's definition of logistics (NATO, 2018a) into its five elements: matériel, transport, facilities, services and medical/health and considering whether any of these logistics elements potentially could affect the likelihood of allied support.

5.1.1 Interest

From the vantage-point of interest based state behaviour, logistics as a potential motivator of allied support is not likely. Allied support will be given if it serves the interests of the allies, defined in terms of power, security, and survival. With this logic, increasing logistical infrastructure could serve as a bonus, and could play a role for instance in making the decision of support easier to legitimate domestically; but the decision to offer allied support in the first place is not likely to be influenced by such matters.

Potential exceptions are possible to imagine in the areas of shared resources, where protecting the ally will also mean protecting U.S. personnel, infrastructure, or other interests.

³⁰ This is further illuminated by Wendt's (1995, p. 73) contention that one state does not have to view another as the enemy; rather, social practice can produce such a view, and thus produce behavior: "A security dilemma, for example, is a social structure composed of intersubjective understandings in which states are so distrustful that they make worst-case assumptions about each other's intentions, and as a result define their interests in self-help term".

Prepositioning of materiel by a significant power in the supported country or cooperation that results in some kind of shared ownership, consequently leading to risk of loss of that equipment, are examples of such a contingency. Prepositioning of materiel depends both of storage facilities and maintenance services. As this would be an indirect effect – and, logically, a rather limited one, it is indicated by a (+) in the columns “materiel”, “facilities” and “services” in table 5.1.

5.1.2 Values

With the narrow definition of logistics presented here, values do not figure. Thus, logistic resources as defined here have no role in determining allied support. This is indicated with no signs in any of the elements of logistics in table 5.1 when viewed from the values hypothesis.

5.1.3 Enlightened self-interest

In contrast, as logistics can increase defence capability, thus decreasing cost of allied action and increasing the likelihood of operational success, it does play a role in determining allied support per the hypothesis of enlightened self-interest. Thus, a robust logistics system – or the lack of it – could help determine allied support, as it plays into matters such as preparedness, rapid reinforcement and operational endurance. Hence, per the enlightened self-interest hypothesis, all of the five functional areas of logistics could increase the likelihood of allied reinforcement, as indicated by the string of ‘+’-symbols in table 5.1.

5.1.4 Identity

In order to consider whether and how logistics could serve as a security policy tool in an identity oriented explanation, we have to consider whether logistics can create bonds of solidarity between allies. It is held to be unlikely that logistics in and of itself could create such bonds, as described in chapter 4.1.4. Thus, logistic resources as defined in the first approach have no role in determining allied support. This is indicated with no signs in any of the elements of logistics in table 5.1 when viewed from the values hypothesis.

5.1.5 Summary Approach 1

To conclude, using the first analytical approach, only the hypothesis of enlightened self-interest leaves room for the possibility that logistics itself can directly influence the probability of receiving allied support. The hypothesis of interest does however, to some extent acknowledge that logistics indirectly can have the same effect.

Logistic element					
Hypothesis	Materiel	Personnel transport	Facilities	Services	Medical/ health
Interest	(+)		(+)	(+)	
Values					
Enlightened self-interest	+	+	+	+	+
Identity					

Table 5.1 Approach no. 1 with parameter values. A ‘+’ signifies a possible effect, a ‘(+)’ signifies limited or indirect possible effect, whereas no mark signifies no connection between logistics and the probability of allied support

This approach may be enlightened by looking into the potential effect of an opposite course of action, namely reducing or removing any of the measures that signifies an increased likelihood for allied support, as shown in table 5.1. In line with the discussion above, removing these measures could presumably reduce the likelihood of allied support according to the hypothesis of enlightened self-interest, and potentially, in a limited and indirect way, also based on the interest based perspective.

5.2 Approach 2 – Logistics within functional areas of military operations

In the second and broader approach to logistics, we look into the logistic aspect across all functional areas of military operations, assessing their potential to enhance the probability of allied reinforcements, as shown in table 5.2.³¹ Note that the logistics aspects of these functions make up a small part of each of the nine functions. Although not assessed in this report, each function may also be a strategic tool in itself.

5.2.1 Interest

Widening the approach to logistics does still not allow for logistics to play a significant role in the matter of allied support from the interest hypothesis. Allied support would still be triggered by strictly self-interested concerns, narrowly defined. Per this logic, a state that seeks allied support would do well to make sure one’s own interest is in line with those of one’s allies. As such the decision to offer allied support in the first place is not likely to be influenced by such matters.

A potential exception is the case where allied support becomes a prerequisite for protecting the interests of our most powerful of allies. Intelligence is assumed to be a critical interest of important allies, such as the U.S. The logistic elements of intelligence would primarily be buildings that facilitate the harvesting of joint intelligence. Hence the infrastructure upholding a

³¹ All nine functions are described in footnote 12.

joint intelligence effort may therefore be of interest for the most important allies. As discussed in 5.1.1, it is also possible that shared logistics resources, such as prepositioning of materiel or investments in the infrastructure of the supported country is of interest to important allies. Protecting the ally will then also mean protecting logistics connected to U.S. interests. As this would be an indirect effect – and, logically, a rather limited one, it is indicated by (+) in the “intelligence” and “logistics” columns in table 5.2.

5.2.2 Values

Applying the wider approach to logistics does however change the conclusion according to the values hypothesis. This approach includes logistic aspects of factors such as signed agreements, between allies, for instance logistical arrangements. In this case, logistics does play a role in determining allied support. The very existence of such plans and agreements can be perceived as an incentive to reinforce an ally, since obligation, reputation, credibility and standing by your word are paramount values in themselves. This might be especially important in the event of concurrency issues, where several allies require assistance simultaneously. Thus, the potential effect of the existence of agreements is illustrated by a + in the “joint plans” column in table 5.2.

5.2.3 Enlightened self-interest

This hypothesis emphasizes actual defence capability – or reduced associated vulnerabilities – and allows for such increased capability to increase willingness to support an ally. In line with the conclusion based on the first analytical approach, the function logistics in its entirety, corresponds closely to this perspective, hence the ‘+’ in this cell. By the same token, common funding schemes (i.e. finance) reducing costs of an ally’s logistics, for instance through host nation support, will contribute to the same effect.

5.2.4 Identity

Can logistics, in its broadest meaning, create bonds and solidarity between allies? Long-standing logistics cooperation involving both operational and logistics aspects, like operational deployment, frequent joint exercises or common logistic arrangements, may all indirectly create or maintain this sort of relation or bond. This is indicated with a (+) in the “joint operations” column and a (+) in the “logistics” column in table 5.2.

Joint operations with allied forces around the world will, to a greater or lesser degree, always include some kind of joint logistics. This may for instance be cases where smaller countries provide medical facilities or other critical logistic capabilities contributing to saving allied lives. Furthermore, logistics as a field might serve as an arena incentivizing more joint training. As such, it could indirectly bring allies closer together, creating bonds of identity, as indicated with a (+) in the training column. Coming on top of the ordinary bonding effect of joint exercises between units from different countries, strong logistic support of training and exercises could enhance that effect between formations, commanders and staffs, creating an in-group of allies and an out-group of rivals. The same effect can be expected through exchange of personnel and

joint education related to logistics. This is the sort of “brothers in arms” bonding which could affect the reinforcement issue according to the identity hypothesis.

Moreover, joint operations and exercises could foster what is popularly termed alliance cohesion, meaning not only interoperability and a high degree of institutionalization in each member’s defence and security policy, but on a similar threat perception and unanimity on the alliance’s purpose.

5.2.5 Summary Approach 2

To conclude, applying a wider approach to logistics than the NATO definition applied in the first analytical approach, two hypotheses leave room for the possibility that logistics may have a direct effect on the likelihood of allied support, namely values and self-interest, as shown in table 5.2. Per the two other hypotheses, interest and identity, logistics may have a weak and/or indirect effect on the likelihood of allied support.

Logistic aspect									
Hypothesis	Personnel/ exchange/ education	Intelligence	Joint operations	Logistics	Joint plans	C4	Training/ exercise	Finance	Civil affairs/ STRATCOM
Interest		(+)		(+)					
Values					+				
Enlightened self-interest				+				+	
Identity	(+)		(+)	(+)			(+)		

Table 5.2 Approach no. 2 with parameter values. A ‘+’ signifies a possibility, whereas no mark signifies no connection between the probability of allied support and the hypothesis in question. A (+) marks the possibility for an indirect effect.

As was the case with the first approach, the second approach may also be enlightened by considering the potential effect of reducing or removing any of the measures that signifies an increased likelihood for allied support. In line with the discussion above, removing these measures would remove the possibility of any effect of logistics on allied support – that is, the possible effect of reduced costs of sending allied reinforcements (enlightened self-interest) and of formal commitments (values). In addition, this would remove the possibility of indirect effect through shared interests (interest) and closer ties (identity).

5.3 Approach 1 vs. approach 2

Looking at the two matrices, we can now try to draw some conclusions about logistics as a credible strategic tool to the end of enhancing the likelihood of allied reinforcements in a crisis. The first approach, where logistics is strictly defined in accordance with NATO’s definition of logistics, displays a one-sided picture across the different components of military logistics. Only

the enlightened self-interest hypothesis sees the possibility of a direct effect of logistics on the likelihood of allied support. The interest hypothesis allows for a possible, though unlikely, and in any case limited, indirect effect. The second approach presents a more holistic picture than the first approach, taking a broader view on logistics, as shown in table 5.2. Spread across the entire spectrum of joint military functions, the logistic elements of several of them, when broadly defined, may conceivably increase the likelihood of allied support.

While our expectation was that the two matrices would produce the same findings, the differences that were disclosed between them were instructive. For one, it showcased that it is rather far-fetched to think of logistics (strictly defined) as a security political tool, with the exception of its possible cost reducing effects. Further, it illustrated that with a broad approach, where logistics in and of itself included multilateral agreements and commitments, the values hypothesis allows for a possible direct effect between logistics and allied support. With this approach, logistics as a framework for military cooperation could also, per the identity hypothesis, contribute to strengthened ties of between allies, and as such, also contribute indirectly to allied support.

It is important to note that lack of effect in this study is not meant to conclude that logistics would never matter in the state's decision-making process. The hypotheses represent ideal types, meaning that they represent a stylized version of what matters most – what *drives* – state behaviour. Thus, other priorities that are not as fundamental are not included in this study. As such, it might well be that after a state has decided that allied support is in its interest, for instance, it will then consider elements expressed by the other hypotheses, such as reputation, costs, friendship, and so on. In this process, as we have seen, logistics might play a role.

5.4 The Norwegian defence logistics system as a case

In the previous chapters we established a theoretical framework and two analytical approaches and assessed whether logistics in general can be a strategic security tool that increases the likelihood of allied support. We will now use these general considerations to discuss the case of the Norwegian defence logistics system (described in chapter 3.4). Below we therefore discuss various solutions in the current logistics system that the Norwegian Armed Forces has developed during the last decade and, *if* they might have an effect, how these practical solutions potentially can affect the likelihood of allied support.

5.4.1 Interest

As we have seen, the interest hypothesis holds that logistics can hardly in its own right serve as security policy tools. In our analysis we have found only a marginal possibility of indirect effect, through the deployment of troops and equipment. It is thinkable that pre-positioning of equipment and supplies for U.S. forces in Norway (Marine Corps Prepositioning Program – Norway, MCPP-N), could serve to link the interest of allied nations, in this case, the interest of the most powerful allies, such as the United States. Based on this hypothesis, it does, however, seem rather unlikely that the stationing of U.S. resources in Norway alone could contribute to

triggering an allied response. Following the logic of interest based explanations, then, there is not a lot a small state could do to influence the actions of the more powerful in times of conflict. Hence the Norwegian logistics defence system itself, including its considerable logistics HNS capacity does not affect the likelihood of allied support, based on this hypothesis.

In peacetime, however, the powerful nation will probably focus on other considerations as well, such as principle, ideology, and values. As pointed out in chapter 2.5, peacetime support is beyond the scope of our inquiry. For our purposes, considerations like principles would not, per the interest hypothesis, affect the question of allied support, as allied support presupposes conflict.

5.4.2 Values

As for the hypothesis that allied support is likely if the support undergirds international law and fosters values such as human rights, democracy, and peace, logistics may play a role in the question of allied support as long as international doctrines and agreements is included in the meaning of logistics. According to this hypothesis, commitment matters in international relations. Once a state signs onto a formal agreement relating to allied support, this in itself could increase the likelihood that such support is given. This might be especially important to smaller allies in situations where providing support goes against the more powerful allies' more immediate interests. As such, a political measure to increase the likelihood of allied support would be to get formal guarantees from one's allies. Norway already has such a guarantee through NATO's Article 5, but it is possible that other supportive and confirmative commitments like bi- or multilateral agreements would strengthen the likelihood of allied support.

The most prominent Norwegian example of agreements and commitments underpinning Article 5 is the bilateral agreement Norway has with U.S. Marine Corps, MCPP-N.³² The MCPP-N was originally an agreement for pre-storage of equipment in Trøndelag for a potential U.S. deployment to Norway. In 2006 it became pre-storage for USMC outside the U.S., for operations everywhere (The Norwegian Ministry of Foreign Affairs, 2021). The title of the agreement, *Memorandum of understanding (MOU) governing prestockage and reinforcement of Norway*, however, indicates that the main purpose of the preposition of equipment is to reinforce Norway. Furthermore, the actual MOU states that "the MCPP-N will support the reinforcement of Norway, as well as global U.S. Marine Corps expeditionary operations, including establishment of forward operating bases and selected security cooperation activities in support of U.S." (The Norwegian Ministry of Foreign Affairs, 2021). Norway covers half of the related costs (storage, maintenance, testing of equipment, etc.), as well as providing transport and securing of the equipment to allied operations (or training) in Norway.

In the event that MCPP-N is used to for such reinforcement, Norway "shall make available adequate means to load, transport, and protect equipment of the MCPP-N, as well as receive,

³² MCPP-N is described in footnote 8.

stage and move onward personnel and equipment to predesignated areas within Norway”. Furthermore, Norway is responsible for adequate prepositioning facilities, airbase reception facilities and operating air bases, and shall assume responsibility for security and general maintenance of prepositioned equipment and supplies.

In addition to MCPP-N, there is the newly updated bilateral agreement with U.S., where the Americans get access to four concrete geographical Norwegian areas (Prop. 90 S (2021–2022), 2021; The Norwegian Ministry of Foreign Affairs, 2021). According to the Norwegian Ministry of Defence, there exists no other bilateral agreements with U.S. with the corresponding degree of detail and mutual obligations. During a Parliament hearing on the matter, the previous Norwegian Minister of Defence stated that “[t]he agreement has been tangible proof of American will and ability to contribute to the defence of Norway in crisis and war” (The Norwegian Parliament, 2021). In the agreement text, the United States does not literally commit itself to prioritizing Norway over other NATO countries, however.

There is also a bilateral agreement between Norway and the United States encompassing prepositions of equipment, facilities and logistics resources such as fuel for the United States Air force, also called collocated operating bases (COB). Currently the COB-agreement encompasses support at two airports, namely Bodø and Sola (Lewis et al., 1986; The Norwegian Ministry of Foreign Affairs, 2021).

Lastly, the recently signed technical agreement between NDLO and JFC NF regarding the establishment of NOR JLSG is a good example of how the Norwegian defence logistics system through the establishment of NOR JLSG commits itself to be a framework for the JLSG of JFC NF (JFC Norfolk Public Affairs Office, 2022).

Moreover, the values hypothesis also allows for the possibility that nations will honour each other’s sacrifices, and return favours, as this could promote cooperation and trust in international politics. Therefore it could matter for the question of allied support whether the small state has been “a good ally”, which was the title of Norway’s official evaluation of the contribution to the operation in Afghanistan (The Norwegian Ministry of Defence & The Norwegian Ministry of Foreign Affairs, 2016). The fact that Norway has established NOR JLSG as a consequence of a U.S.³³ request that Norway take on a regional logistic support responsibility for U.S. and allied operations in the Northern-European theatre, the High North, may hence have a positive effect. Mutual reciprocation is possible, and as such, it is conceivable that complying with these wishes contributes to Norway’s chances of receiving allied support in a conflict. When logistics is what the alliance needs, as in the case of the NOR JLSG, complying with these needs allows for an indirect effect of logistics on the likelihood of allied support. However, these measures are not likely to matter in and of themselves.

³³ As described in chapter 2 Chief of JFC NF is two hatted, and is both chief of the U.S. 2nd Fleet and of JFC NF.

Per the values hypothesis, then, logistics in the form of interstate agreements and complying with logistical alliance needs, could serve as a security policy tool increasing the likelihood of allied support.

5.4.3 Enlightened self-interest

For the hypothesis that allied support is likely if member countries consider the gain to outweigh the cost of deploying, it is possible that logistics could reduce the costs of allied support, increase the probability of operational success, and decrease the risks associated with deploying. Thus, logistics could itself increase the likelihood of allied support,

As we saw in both matrices in chapter 5, decreasing the costs of allied support could be achieved through effective and efficient HNS, through pre-positioning of equipment and supplies for U.S. forces in Norway, to the extent possible within security policy constraints,³⁴ and through logistical interoperability.

The increased capacity of the Norwegian defence logistics system both regarding reception, staging and onward movement and the actual HNS makes it less necessary for an ally to bring its own logistic resources, and can hence be perceived as cost beneficial for the ally.³⁵ In line with the hypothesis of enlightened self-interest, then, the Norwegian logistics system can increase the likelihood of allied support.

Regarding logistical interoperability, this may, for instance, be achieved through NATO's established JLSGs in NATO's Joint Forces Commands in Europe, Brunssum and Naples (Allied Joint Force Command Brunssum Public Affairs Office, 2020). While the primary area of action and interest in this regard is Central Europe, their main tasks vary, and one such task could be supporting the deployment of NATO Response Force to other area(s) of operation, where Norway might be one such area. In case of conflict concerning Norway, these established JLSGs could be a measure that decreases the costs of deploying allied support to Norway. In line with this, the newly established NOR JLSG could have the same effect. It has the capability to become a multinational logistic HQ, which will support a maritime oriented joint command in NATO, as described in chapter 3.4. Concurrently, the Norwegian defence logistics system will through NOR JLSG be able to support allies operating in the Arctic-Atlantic area with a range of logistics HNS up to 2.5 times the support given during exercise Trident 2018.

Another factor that may play a role in decreasing costs is the Norwegian shipping capacity. According to Åse G. Østensen and Ståle Ulriksen at the Royal Norwegian Naval Academy, "[t]here is currently considerable concern with U.S. capacity to muster the acquired number of sealift vessels needed to swiftly deploy forces overseas. Norway for its part has a large, modern,

³⁴ Due to the Norwegian base policy, embodied in the base declaration of 1949, no bases will be opened for foreign countries' armed forces on Norwegian territory as long as Norway is not attacked or exposed to threats of attack.

³⁵ As noted, the termination of the agreement with the Norwegian company WilNor represents a temporary reduction of this capacity. A process is underway to replace the previous agreement.

and versatile merchant fleet that could be militarily useful in case of NATO operations to reinforce Europe” (Ulriksen & Østensen, 2019).

Lastly, sufficient logistics increase the likelihood of operational success. Increased likelihood of success could be seen as a reduction of the costs associated with sending allied reinforcements. Overall, then, the Norwegian logistics system could contribute to decreasing the costs of allied support, thus also increasing the likelihood of allied support, based on the hypothesis of enlightened self-interest.

5.4.4 Identity

As presented in chapter 4.1 the identity hypothesis holds that allied support is more likely if there exist bonds of identity between the members of the alliance, where members consider themselves part of a community of which the adversary is an enemy. Accordingly, a small allied state such as Norway should contribute to a rules-based international order where nations can make decisions that are not purely based on self-help, where the powerful states can be committed to defending this rules-based order, for instance by protecting small states from potential aggressors.

As we saw from the two approaches, logistics can, per the identity hypothesis, have an indirect effect on the likelihood of allied support. It is held to be unlikely though that logistics in and of itself could create bonds of identity, but it is not unlikely that logistics in the form of regular cooperation could strengthen or uphold bonds between allies.

Looking into the components of Norwegian defence logistics, there are some examples of measures that can contribute to this indirect effect. The fact that NOR JLSG also will be under the command of JFC NF in an allied operation in the High North, indicates that the foundation for a bond of identity already exists.

During the Norwegian exercise Cold Response 2022 with more than 30 000 participants from 27 countries, NOR JLSG was trained for the first time. NOR JLSG consisted of both Norwegian officers and augmentees from JFC Brunssum, localized in the same building while cooperating on the various tasks (Birkemo & Graarud, 2022). The next Cold Response exercise in 2024 is planned to have even more participants, and is a good opportunity to increase the cooperation and hence further develop bonds of identity. Along with this, having a Norwegian liaison representing NOR JLSG in JFC NF could have the same effect. Hence both of these solutions within the Norwegian defence logistics system are measures that according to the identity hypothesis indirectly could increase the likelihood of allied support.

The logistics capacity of the Norwegian defence logistics system, does not directly impact of the question of allied support. Still as a supplement to the ordinary bonding effect of joint exercises between units from different countries, strong logistic support of training and exercises could enhance that effect between formations, commanders and staffs. Trident Juncture 2018 is such an example where the Norwegian defence logistics system delivered more than 99 % of the

orders from the participating nations (Birkemo et al., 2019). This could affect the likelihood of allied support.

To the extent that logistics could serve as a fruitful arena for joint training, joint operations, and thus contribute to broader cooperation and increased kinship between allies, this could indirectly matter in the question of allied support. Based on the identity hypothesis, then, the Norwegian defence logistics system could act as a framework for such close cooperation and indirectly increase the likelihood of allied support.

6 Concluding remarks: Potential implications and further research

This report conducts a theoretical investigation of the potential causality between logistics and the probability of receiving allied support in crisis or conflict. It asks: *How, if at all, might logistics serve as a security policy tool for increasing the likelihood of allied support?*

The recently signed U.S.–NOR agreement covers several logistics-related issues. Concurrently U.S. has signed similar agreements with other Allies with an obvious reinforcement requirement in a crisis. This may indicate that the Americans wish to have a capability to act bilaterally, independently of the political processes in NATO. This might make additional measures more relevant, dependent on what motivates allied support.

Hence, the fundamental underlying question important for understanding alliance dynamics in and of itself is, first, what determines allied support. Second, we ask whether logistics could plausibly affect the likelihood of allied support – meaning that it could serve as a strategic tool, and not merely a tactical one. As no previous study, to our knowledge, tackles this research question, this report starts by taking the first steps, creating a theoretical framework for what motivates allied support, developing a methodological, systematic approach to studying the effects of logistics, and applying this research design to the case of the Norwegian defence logistics system.

From IR theory, we inferred four hypotheses of allied support: interest, values, enlightened self-interest, and identity. By systematizing different aspects of logistics itself and logistics aspects of military functions, we considered both the direct and indirect effects, as well as contemplating two different understandings of logistics: one narrow, strictly based on NATO's definition of logistics, consisting of material, defence logistics, and one broad approach to logistics, also encompassing for instance logistics aspects of international doctrines and agreements. Applying the theoretical hypotheses to our approach to logistics, we identified how logistics could – and could not – serve as a tool to increase the likelihood of allied support.

Lastly, we illustrated these findings by applying them to the case of the Norwegian defence logistics system.

The inevitable uncertainty of social and political phenomena, such as the motivations of allied support, has led our conclusion to be ambiguous. This study can at best indicate a potential theoretical causality between logistics, including the Norwegian defence logistics system, and the likelihood of allied support. This potential causality is supported by some, but not all, of the theoretical paradigms studied in this report as summarized in the table 6.1.

Hypothesis	Potential causality
Interest	The potential way to increase the likelihood of allied support would be to align one's interests and policy objectives with those of the most powerful, and logistics is not likely to play a decisive role in this regard.
Values	Logistics in the form of interstate agreements, could serve as a security policy tool increasing the likelihood of allied support.
Enlightened self-interest	A logistics system could contribute to decreasing the costs of allied support, thus also increasing the likelihood of allied support.
Identity	Logistics could serve as a framework for cooperation and foster closer ties between allies, thus indirectly increasing the likelihood of allied support.

Table 6.1 Conclusion on the causality between logistics and the likelihood of allied support.

Our analysis shows that it is uncertain – but possible – that logistics in general, and the specific changes made to the Norwegian defence logistics system over the last decade, can increase the likelihood of allied support. Out of four hypotheses, the hypothesis of enlightened self-interest in particular allows for a potential direct effect between logistics and allied support, through the cost decreasing function of logistics. Due to this hypothesis then, the recently established Norwegian Joint Logistic Support Group Command for the North Atlantic Area (NOR JLSC) based on the Norwegian Armed Forces' tactical logistics command may therefore have an effect. Further valid measures include increasing the available infrastructure and capacity for reception, staging, onward movement and integration through investment in harbours, airfields, railway stations etc., could be one such measure. Also, increasing logistic support to allied forces, and in particular U.S. forces, on a regional basis, would be a valid measure due to the hypothesis of enlightened self-interest.

According to the values hypothesis, logistics could have a direct effect as long as we have a broad approach to logistics, specifically including international agreements. No such possible direct effect is found in the hypotheses of interest and identity. They do, however, to varying degree, allow for a limited and potential indirect effect.

In general, then, the logistics measures that possibly could serve as security tools are mainly those that reduce cost, increase the likelihood of operational success, or constitute joint agreements. Acknowledging that U.S. is the most important ally, extending cooperation with the USMC for facilitating the reception and commitment of marine reinforcements might be such measures.

Measures such as provision of extensive logistic support and services, as demonstrated by the current defence logistics system, could potentially serve as security tools. Subsidizing training costs for allied armed forces is another measure that could serve as a security tool. Further data collection and analysis is however necessary to be able to substantiate these preliminary findings, and to further fill out the blanks of what goes into state's decision-making process in the question of allied support, and where in this process logistics could figure.

Abbreviations

C4	Command, Control, Communications, Computers
COB	Collocated Operating Base
FLO	Forsvarets logistikkorganisasjon
HNS	Host Nation Support
IP	Internasjonal politikk
IR	International Relations
JFC	Joint Force Command
JFC NF	Joint Forces Command Norfolk
JLSG	Joint Logistic Support Group
MCPN-N	Marine Corps Prepositioning Program – Norway
MOD	Ministry of Defence
MOU	Memorandum of understanding
NATO	North Atlantic Treaty Organisation
NDLO	Norwegian Defence Logistics Organisation
NOR JLSG	Norwegian JLSG
SME	Subject Matter Expert
STRATCOM	Strategic Communications

References

- Aitken, J. (1998). *Supply Chain Integration within the Context of a Supplier Association* [Cranfield University]. <http://dspace.lib.cranfield.ac.uk/handle/1826/9990>
- Allied Joint Force Command Brunssum Public Affairs Office. (2020). *Joint Logistic Support Group Brunssum established*. Allied Joint Force Command Brunssum. <https://jfcbs.nato.int/page5964943/2020/joint-logistic-support-group-brunssum-established.aspx>
- Alme, V. (Work in Progress). *Theorizing Allied Support: The Case of the Franco-American Alliance of 1778*.
- Baume, M. de la, & Herszenhorn, D. M. (2018, November 13). Merkel joins Macron in calling for EU army to complement NATO – POLITICO. *Politico*. <https://www.politico.eu/article/angela-merkel-emmanuel-macron-eu-army-to-complement-nato/>
- Bennett, M. M. (2015). How China Sees the Arctic: Reading Between Extraregional and Intraregional Narratives. *Geopolitics*, 20(3), 645–668. <https://doi.org/10.1080/14650045.2015.1017757>
- Bertelsen, R. G., & Gallucci, V. (2016). The return of China, post-Cold War Russia, and the Arctic: Changes on land and at sea. *Marine Policy*, 72, 240–245. <https://doi.org/10.1016/j.marpol.2016.04.034>
- Birkemo, G. A., & Graarud, E. (2022). *Cold Response 2022 – Analyse av vertslandsstøtten* (FFI-Rapport 22/02070 (Draft)). Forsvarets Forskningsinstitutt.

-
- Birkemo, G. A., Graarud, E., & Halvorsen, O. K. (2019). *Et troverdig alliert mottak – erfaringer fra Trident Juncture 2018* (FFI report No. 19/01068). Norwegian Defence Research Establishment. <https://publications.ffi.no/nb/item/asset/dspace:5894/19-01068.pdf>
- Birkemo, G. A., Kristiansen, P., & Farsund, B. H. (2021). *Risiko ved strategisk samarbeid innen IKT – rammeverk og vurdering* (FFI report 21/00527, Exempt from public). Norwegian Defence Research Establishment.
- Birkemo, G. A., Pedersen, O. B., & Bergaust, J. C. (2022). *Strategisk partnerskap – muligheter og utfordringer for forsvarssektoren* (FFI Report 22/02069 (Draft)). Norwegian Defence Research Establishment.
- Bowler, A. (1975). *Logistics and the Failure of the British Army in America 1775–1783*. Princeton University Press.
- Bråten, M. (2007). *Bruk av sivil og militær kompetanse i Forsvarets logistikkorganisasjon* (Fafo-Rapport 2007: 19). FAFO. https://www.faf.no/media/com_netsukii/20019.pdf
- Brewster, R. (2010). Reputation in International Relations and International Law Theory. *Interdisciplinary Perspectives on International Law and International Relations: The State of the Art*, 524–543. <https://doi.org/10.1017/CBO9781139107310.026>
- Bryman, A. (2004). *Social Research Methods*. Oxford University Press.
- Cavas, C. P. (2015). Cave-Dwellers: Inside the US Marine Corps Prepositioning Program-Norway. *DefenseNews*. <https://www.defensenews.com/digital-show-dailies/modern-day-marine/2015/09/20/cave-dwellers-inside-the-us-marine-corps-prepositioning-program-norway/>
- Christopher, M. (2011). *Logistics and supply chain management* (4th ed.). Financial Times/Prentice Hall.

-
-
- Cornett, A. (2020). *Multinational Operations—JLSG offers effective role with allies, partners*.
US Army.
https://www.army.mil/article/231676/multinational_operations_jlsg_offers_effective_role_with_allies_partners
- DeConde, A. (1958). *Entangling Alliance. Politics and Diplomacy Under George Washington*.
Duke University Press.
- Doyle, M. W. (1997). *Ways of War and Peace: Realism, Liberalism and Socialism*. W.W.
Norton & Company.
- Fearon, J. D. (1995). Rationalist Explanations for War. *International Organization*, 49(3), 379–414.
- Fravel, M. T., Lavelle, K., & Odgaard, L. (2022). China engages the Arctic: A great power in a regime complex. *Asian Security*, 18(2), 138–158.
<https://doi.org/10.1080/14799855.2021.1986008>
- Freedman, L. (1994). *War*. Oxford University Press.
- Garamone, J. (2022). *Biden: NATO Has Never Been More United*. U.S. Department of Defense.
<https://www.defense.gov/News/News-Stories/Article/Article/2977756/biden-nato-has-never-been-more-united/>
- Gartzke, E., & Gleditsch, K. S. (2004). Why Democracies May Actually Be Less Reliable Allies. *American Journal of Political Science*, 48(4), 775–795.
<https://doi.org/10.1111/j.0092-5853.2004.00101.x>
- Gerring, J. (2007). *Case Study Research. Principles and Practices*. Cambridge University Press.
- Gilbert, F. (2009). *To the Farewell Address: Ideas of Early American Foreign Policy*. Princeton University Press.
- Hellmann, G., & Wolf, R. (1993). Neorealism, Neoliberal Institutionalism, and the Future of NATO. *Security Studies*, 3, 3–43. <https://doi.org/10.1080/09636419309347537>

-
- Henry, I. D. (2020). What Allies Want: Reconsidering Loyalty, Reliability, and Alliance Interdependence. *International Security*, 44(4), 45–83.
https://doi.org/10.1162/isec_a_00375
- Hilde, P. (2019). Forsvar vår dyd, men kom oss ikke for nær. Norge og det militære samarbeidet i NATO. *Internasjonal Politikk*, 77, 60. <https://doi.org/10.23865/intpol.v77.1626>
- Jervis, R. (1976). *Perception and Misperception in International Politics*. Princeton University Press.
- JFC Norfolk Public Affairs Office. (2022). *Joint Force Command Norfolk and Norwegian Defence Logistics Organisation sign Technical Arrangement*. Supreme Headquarters Allied Powers Europe. <https://shape.nato.int/news-archive/2022/joint-force-command-norfolk-and-norwegian-defence-logistics-organisation-sign-technical-arrangement.aspx>
- Kant, I. (2017). *Perpetual Peace; A Philosophical Essay, 1795*. Andesite Press.
- Kaplan, L. S. (1976). Toward Isolationism: The Jeffersonian Republicans and the Franco-American Alliance of 1778. *Historical Reflections / Réflexions Historiques*, 3(1), 69–81.
- Kaplan, L. S. (2004). *NATO Divided, NATO United: The Evolution of an Alliance*. Greenwood Publishing Group.
- Keohane, R. O. (2005). *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton University Press. https://www.adlibris.com/no/bok/after-hegemony-9780691122489?utm_source=kelkoono&utm_medium=cpc&utm_campaign=kelkoocli&utm_term=Keohane%2C+Robert+O.+After+Hegemony+%2806911&from=kelkoo&gclid=CjwKCAjw-rOaBhA9EiwAUkLV4ph3I4Jn3kOQZZHb8qGcU78iWbX5b9VfSJX1ZQS4Yg9-rXgU3s7zghoCOMYQAvD_BwE

-
-
- Kress, M. (2016). *Operational logistics—The art and science of sustaining military operations* (2nd ed.). Springer.
- Kupchan, C. A. (2020). *Isolationism. A History of America's Efforts to Shield Itself From the World*. Oxford University Press.
- Laird, R., & Timberlake, E. (2021). *The Role of Allied Joint Force Command Norfolk in Atlantic Defense: The Perspective of its Deputy Commander*. Second Line of Defense. <https://sldinfo.com/2021/03/the-role-of-allied-joint-force-command-norfolk-in-atlantic-defense-the-perspective-of-its-deputy-commander/>
- Larson, P. D., & Halldorsson, A. (2004). Logistics Versus Supply Chain Management: An International Survey. *International Journal of Logistics*, 7(1), 17–31.
- Leeds, B. A., Long, A., & Mitchell, S. M. (2000). Reevaluating Alliance Reliability: Specific Threats, Specific Promises. *Journal of Conflict Resolution*, 44(5), 686–699.
- Levy, J. S. (2008). Case Studies: Types, Designs, and Logics of Inference. *Conflict Management and Peace Science*, 25(1), 1–18. <https://doi.org/10.1080/07388940701860318>
- Lewis, D. E., Don, B. W., Paulson, R. M., & Ware, W. H. (1986). *A Perspective on the USAFE Collocated Operating Base System*. RAND Corporation. <https://www.rand.org/pubs/notes/N2366.html>
- Listou, T., & Ekström, T. (2022, March 28). *Russland i Ukraina: Uten logistikk skjer det lite på slagmarken*. Stratagem. <https://www.stratagem.no/russland-ukraina-logistikk/>
- Matlary, J. H., & Petersson, M. (2013). Introduction: Will Europe Lead in NATO? In J. H. Matlary & M. Petersson (Eds.), *Nato's European Allies: Military Capability and Political Will* (pp. 1–36). Palgrave Macmillan.

-
- McInnis, K., & McPartland, C. (2021, May 12). Falling in: The deterrent value of Host Nation Support in the Baltic Sea region. *Atlantic Council*. <https://www.atlanticcouncil.org/in-depth-research-reports/report/falling-in-deterrent-value-of-host-nation-support-baltic/>
- Mearsheimer, J. J. (2014). *The Tragedy of Great Power Politics*. W.W. Norton & Company.
- Morgenthau, H. J. (2006). *Politics Among Nations. The Struggle for Power and Peace* (K. W. Thompson & W. D. Clinton, Eds.; Seventh). McGraw-Hill.
- Moynihan, H. (2018, October 15). *China Expands Its Global Governance Ambitions in the Arctic*. Chatham House – International Affairs Think Tank.
<https://www.chathamhouse.org/2018/10/china-expands-its-global-governance-ambitions-arctic>
- NATO. (1997). *NATO Logistics handbook* (3rd ed.). <https://www.nato.int/docu/logi-en/logist97.htm>
- NATO. (2014). *NATO Principles and Policies for Logistics*.
- NATO. (2020). *Whole of government support to the enablement of SACEURS'S Area of Responsibility*.
- NATO. (2021). *Allied Joint Doctrine for Host-Nation Support (AJP-4.3)* (Edition A Version 1).
https://www.coemed.org/files/stanags/01_AJP/AJP-4.3_EDA_V1_E_2234.pdf
- NATO. (2022). *Resilience, civil preparedness and Article 3*.
https://www.nato.int/cps/en/natohq/topics_132722.htm
- NATO. (2018a). *Allied Joint Doctrine for Logistics (AJP-4)* (Edition B Version 1).
- NATO. (2018b). *NATO Secretary General Annual Report 2018*.
https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20190315_sgar2018-en.pdf

Norwegian Defence Research Establishment. (2021). *Vertslandsstøtte – utvikling og analyse av fire scenarioer* (FFI report 21/01376 (classified)). Norwegian Defence Research Establishment.

Obama, B. (2020). *A Promised Land*. Crown.

Pedersen, R. B. (2018). Bandwagon for Status: Changing Patterns in the Nordic States Status-seeking Strategies? *International Peacekeeping*, 25(2).
<https://doi.org/10.1080/13533312.2017.1394792>

Prop. 14 S (2020–2021). (2020). *Evne til forsvar – vilje til beredskap*. Forsvarsdepartementet.
<https://www.regjeringen.no/no/dokumenter/prop.-14-s-20202021/id2770783/?ch=1>

Prop. 55 (1999–2000). (2000). *Forsvarets logistikkfunksjoner Framtidig virksomhet, styring og organisering*. The Norwegian Ministry of Defence.
<https://www.regjeringen.no/contentassets/83bcb68dfd634e8592fd93ff56c601d9/no/pdfa/stp199920000055000dddpdfa.pdf>

Prop. 73 S (2011–2012). (2012). *Et forsvar for vår tid*. The Norwegian Ministry of Defence.
<https://www.regjeringen.no/no/dokumenter/prop-73-s-20112012/id676029/?ch=1>

Prop. 77 (2005–2006). (2006). *Om samtykke til inngåelse av en rammeavtale av 8. Juni 2005 mellom Norge og Amerikas Forentes Stater om forhåndslagring og forsterkning av Norge*. The Norwegian Ministry of Foreign Affairs.

Prop. 90 S (2021–2022). (2021). *Samtykke til inngåelse av tilleggsavtale mellom Norge og USA om forsvarssamarbeid av 16. April 2021*. Forsvarsdepartementet.
https://www.regjeringen.no/no/dokumenter/prop.-90-s-20212022/id2907763/?q=basepolitikk&ch=2#match_0

Prop. 151. S (2015–2016). (2016). *Kampkraft og bærekraft*. The Norwegian Ministry of Defence. <https://www.regjeringen.no/no/dokumenter/prop.-151-s-20152016/id2504884/?ch=1>

Schroeder, P. W. (2004). *Alliances, 1815–1945: Weapons of Power and Tools of Management*.

In P. W. Schroeder, D. Wetzel, R. Jervis, & J. S. Levy (Eds.), *Systems, Stability, and Statecraft: Essays on the International History of Modern Europe* (pp. 195–222).

Palgrave Macmillan US. https://doi.org/10.1007/978-1-137-06138-6_10

Shambaugh, D. (2013). Assessing the US “Pivot” to Asia. *Strategic Studies Quarterly*, 7(2), 10–19.

Skjelland, E., Berg-Knutsen, E., Arnfinnsson, B., Diesen, S., Glærum, S., Guttelvik, M. S.,

Kvalvik, S., Mørkved, T., Olsen, K. E., Sellevåg, S. R., Sendstad, C., Strand, K. R., & Voldhaug, J. E. (2022). *Forsvarsanalysen 2022* (FFI report No. 22/00659). Norwegian Defence Research Establishment.

<https://publications.ffi.no/nb/item/asset/dspace:7306/22-00659.pdf>

Skjelland, E., Glærum, S., Beadle, A., Endregard, M., Guttelvik, M. S., Hennem, A. C.,

Kvalvik, S., Køber, P. K., Mørkved, T., Olsen, K. E., Sendstad, C., Voldhaug, J. E., & Åtland, K. (2019). *Hvordan styrke forsvaret av Norge? Et innspill til ny langtidsplan (2021–2024)* (FFI-report No. 19/00328). The Norwegian Defence Research

Establishment. <https://publications.ffi.no/nb/item/asset/dspace:6457/19-00328.pdf>

Smid, T. (2022, May 24). *Pandemic and security shocks shake global value chains*. Atradius.

<https://atradius.com.mx/publicaciones/economic-research-pandemic-and-security-shocks-shake-global-value-chains.html>

Storm, S. M. (Awaiting publication). *Measuring Loyalty: Alliance Reliability and Measure Validity* [FFI Report]. Norwegian Defence Research Establishment.

Svanes, H. (2022). Beredskapsavtale signert mellom Borg Havn og Forsvaret. *Forsvaret*.

<https://www.forsvaret.no/aktuelt-og-presse/aktuelt/beredskapsavtale-borg-havn-og-forsvaret>

-
- The American Joint Chiefs of Staff. (2019). *Joint Headquarters Organization, Staff Integration, and Battle Rhythm*. https://www.jcs.mil/Doctrine/focus_papers.aspx
- The Norwegian Armed Forces. (2021, November 10). *Logistikksjefene for JCF NF prioriterer samvirke med Norge* [Intranett].
- The Norwegian Ministry of Defence. (2020). *The defence of Norway—Capability and readiness Long term defence plan 2020*.
<https://www.regjeringen.no/contentassets/3a2d2a3cfb694aa3ab4c6cb5649448d4/long-term-defence-plan-norway-2020---english-summary.pdf>
- The Norwegian Ministry of Defence & The Norwegian Ministry of Foreign Affairs. (2016). *En god alliert - Norge i Afghanistan 2001-2014: Utredning fra et utvalg nedsatt ved kongelig resolusjon 21. november 2014: lagt fram for Utenriksdepartementet og Forsvarsdepartementet 6. juni 2016*. Departementenes sikkerhets- og serviceorganisasjon.
- The Norwegian Ministry of Foreign Affairs. (2021). *Undertegning av tilleggsavtale mellom Norge og USA om forsvarssamarbeid*. regjeringen.no.
https://www.regjeringen.no/no/dokumenter/kglres_forsvarssamarbeid/id2845034/
- The Norwegian Parliament. (2021, November 23). *Skriftlig spørsmål fra Bjørnar Moxnes (R) til forsvarsministeren* [DOK15:]. Stortinget; Stortinget.
<https://www.stortinget.no/no/Saker-og-publikasjoner/Sporsmal/Skriftlige-sporsmal-og-svar/Skriftlig-sporsmal/?qid=86603>
- The White House. (2022a, February 3). *Remarks of President Joe Biden – State of the Union Address As Prepared for Delivery*. State of the Union, U.S. Congress.
<https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/03/01/remarks-of-president-joe-biden-state-of-the-union-address-as-delivered/>

The White House. (2022b). *National Strategy for the Arctic Region*. The White House.

<https://www.whitehouse.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf>

The White House. (2022c). *National Security Strategy*. The White House.

<https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>

Ulriksen, S., & Østensen, Å. G. (2019). Building on strength. Proposals for US-Norwegian cooperation on the operational and tactical level. In *I5* [Report]. Sjøkrigsskolen.

<https://fhs.brage.unit.no/fhs-xmlui/handle/11250/2630745>

United Nations Conference on Trade and Development. (2020). *Handbook of Statistics 2020—Merchant fleet*.

<https://stats.unctad.org/handbook/MaritimeTransport/MerchantFleet.html>

Walt, S. M. (1987). *The Origins of Alliances*. Cornell University Press.

Waltz, K. (1979). *Theory of International Politics*. Addison-Wesley Publishing Company.

Weinstein, F. B. (1969). The Concept of a Commitment in International Relations. *The Journal of Conflict Resolution*, *13*(1), 39–56.

Wendt, A. (1995). Constructing International Politics. *International Security*, *20*(1), 71.

<https://doi.org/10.2307/2539217>

Wendt, A. (1999). *Social Theory of International Politics*. Cambridge University Press.

https://books.google.no/books?hl=no&lr=&id=s2xjEd0ww2sC&oi=fnd&pg=PR13&dq=alexander+wendt&ots=UFnzBhLaLv&sig=AJyghEY_PLZN4a5VC1DfW8qTMt4&redir_esc=y#v=onepage&q=alexander%20wendt&f=false

Åtland, K. (2022). Russlands mål og måloppnåelse i ukraina. *LUFTLED*, *2*, 48–51.

<https://luftled.info/wp-content/uploads/2022/06/LUFTLED-nr-2-2022.pdf>

About FFI

The Norwegian Defence Research Establishment (FFI) was founded 11th of April 1946. It is organised as an administrative agency subordinate to the Ministry of Defence.

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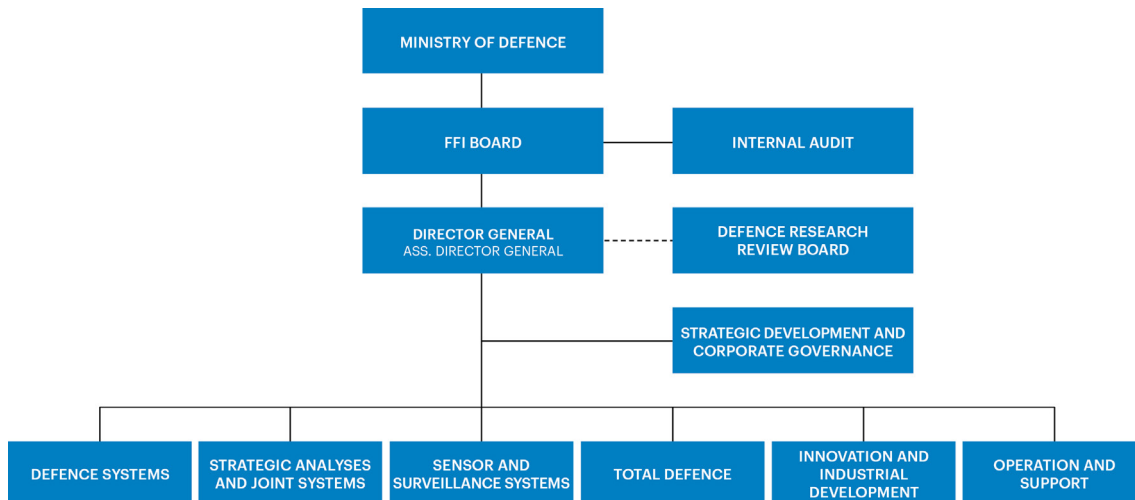
FFI is the prime institution responsible for defence related research in Norway. Its principal mission is to carry out research and development to meet the requirements of the Armed Forces. FFI has the role of chief adviser to the political and military leadership. In particular, the institute shall focus on aspects of the development in science and technology that can influence our security policy or defence planning.

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FFI turns knowledge and ideas into an efficient defence.

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