

# Towards the Geopolitics of Flows

## *Implications for Finland*

Mika Aaltola  
Juha Käpylä  
Harri Mikkola  
Timo Behr





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**1**



# 1. Introduction

The FIHA report *Towards the Geopolitics of Flows: Implications for Finland* is the final report of the research project funded by the Scientific Advisory Board for Defence (Maanpuolustuksen tieteellinen neuvottelukunta; MATINE) and the National Emergency Supply Agency, NESÄ (Huoltovarmuuskeskus; HVK), conducted during 1.1.2013–30.4.2014.

The report is premised on the assumption that geopolitics is increasingly defined by the emerging and strengthening force of global flows. This entails a strategic shift of balance away from traditional geopolitics focused on relatively self-reliant territorial sovereign states towards taking into account more dynamic geopolitical interdependencies. The approach adopted here entails a growing emphasis on the importance of various flows (e.g. of goods, finance, people, information) – and their stability, reliability and security (or lack thereof) – that rely on and use the various commons domains, namely the high seas, airspace, space and cyberspace. All sovereign actors are reliant on global flows to a growing degree. The maritime domain is of particular importance as various maritime contexts (e.g. critical maritime corridors) are essential to global trade flows of goods, resources, and energy as well as to the security of various littoral or maritime nations. This also applies to Finland.

The fluid global circulations of resources, goods, data, and people are increasingly challenging the older geopolitical paradigms of power and security. Newer signifiers of security are strengthening as states and societies become connected and dependent on the overall circulation. The transformation brings scenarios such as security of supply, resilience, and flow security into increasing focus. Increasingly, geo-economic realities intertwine with the older notions of security.

Instead of disappearing, the traditional security challenges have acquired new meanings in the changed context (e.g. Nye 2004; Youngs 2011; Zarate 2012; Moisio and Paasi 2013).

The flow effect on states, economies, and societies is uneven in that smaller actors face stronger adaptive pressures and crosscutting challenges to their security. The slogan of the day seems to be that, for smaller economies in particular, the securing of access to these flows is a crucial imperative. However, agile adaptation is seen as a characteristic of smaller states. They have much experience in being relatively dependent on global interlinkages due to their more specialized economies. At the same time, the resilience and societal stability of the relatively exposed smaller states are called into question. Furthermore, the transformation challenges the status and identity of states. As new regions or sub-regions, such as the Arctic, become linked to the global flows, the political geography and territory are significantly transformed. The localities become re-contextualized as parts of the emerging global hub-and-spoke structure, rather than in their traditional national or regional context. This report seeks to develop an overview of the security pressures that Finland faces as a relatively small, highly open and connected state. Finland has been, on many fronts, a success story. It has actively sought to become connected to the global flows. However, the increase in new connections is also likely to result in new vulnerabilities. For example, the development of Helsinki as a Baltic Sea hub and a multi-dimensional gateway (e.g. maritime, air connections) has also exposed the functioning Finnish society to more complex, potential security-of-supply vulnerabilities.

The frequency of inter-state war has declined globally since the end of the Cold War. This decline is commonly attributed to the spread of democratic political systems and to the growing interdependence between states. In Europe, in particular, the central belief has been that the deepening integration has made inter-state war an anachronism. The building of common European institutions is believed to have reached an escape velocity from the traditional map of geopolitics and zero-sum games. This interdependency emphasis has highlighted the emergence of economic and technological dynamics as an added reality that has re-contextualized the harder geopolitical facts (e.g. Luttwak 1990). The key strategies and planning for the security of the Finnish state and society have been based on this interdependent paradigm and geo-economic fundamentals. However, as the Ukrainian situation has demonstrated, today's political reality is characterized by mixed

tendencies. The traditional geopolitical competition is still a dynamic that co-exists with patterns and tendencies that are clearly geo-economic and flow-related (e.g. Cowen and Smith 2009). In this situation of blurred paradigms, the Finnish preparedness planning and security of supply must take into consideration two co-existing security characteristics: traditional hard security risks that may materialize, as well as the newer focus on making the international connections, interlinkages and flows as steady and resilient as possible.

The report analyzes transformations in global geopolitics and geopolitical thought, with a specific focus on global flows, global commons, and especially the global maritime domain. The report investigates the dynamics in the Finnish maritime domain with a special focus on the opening Arctic region as a potential space of global flows. The report also discusses Finland in the world of global flows by rethinking Finnish cultural cognitions about the country's place in the world, particularly the metaphor of "Finland as an island". Based on this, the report maps out the ongoing transformation in the Finnish preparedness planning paradigm – including military and general security of supply – in the world of global flows.

## 1.1 RESEARCH OBJECTIVES

This report should be approached as an initial step in developing new conceptual tools and a theoretical framework that is suited to the strategic analysis of the contemporary world order, and thus also of the Finnish geopolitical situation. It aims to broaden and readjust the existing political imaginary of how political space should be understood today.

The starting point for the research project was (1) to analyze the shift in international geo-strategic thinking away from territorial geopolitics towards the geopolitics of global flows and global commons, and (2) to analyze the implications of this geo-strategic and geopolitical transformation for Finland.

Following on from this, the goal of this study is to increase Finnish geo-strategic understanding of (1) global geopolitical trends, (2) the growing importance of the maritime domain in international geo-strategy, and (3) the geo-strategic dynamics in the Finnish maritime proximity, as well as (4) to increase Finnish understanding of the

possibilities of national preparedness planning in an asymmetrically interconnected world of global flows.

The research was conducted as a conceptual analysis based on academic and expert literature and policy document sources. A number of expert interviews and closed seminars were also conducted during the project.

## 1.2 RESEARCH PREMISES

According to an old metaphor, “Finland is an island”, isolated not only by the long eastern land border with Russia, but also by the Baltic Sea in the south and west. The means of arriving at this metaphorical conception are manifold. From the point of view of logistics and trade, Finland is an island nation because the passenger traffic from Finland is mostly by boats or by planes and because it is separated by the sea from its main export markets. The maritime logistics that facilitate this trade activity cannot be replaced by any other means of transportation due to geography and large cargo volumes.

The “Finland as an island” metaphor also includes a perspective on the country’s geographical imagination: on the way in which the surrounding geopolitical environment is understood in Finland. From the centre’s perspective, Finland is an island. One might observe, for example, that Finland is an island in relation to continental Europe. Furthermore, the metaphor can also be interpreted to include cultural or ideological content; namely that Finland is an island of Western civilization. This cultural aspect of the island imagery stresses Finland’s position (supposedly) on the edge of Western civilization. This version downplays the land connections to Moscow and St. Petersburg because one may argue that these haven’t been considered to lie in the desired direction of Finnish connectivity and mobility.

The metaphor has also had security policy implications. Stemming from the Finnish experiences of World War II and the Cold War, and from the fact that Finland is a militarily non-aligned country, the Finnish national mindset has two traditional characteristics. First, Finland always needs to be prepared for the worst. Secondly, if the worst does in fact occur, there is no country, alliance, institution or norm that Finland can rely on to help; in other words, Finland needs to cope by itself. In the tradition of Finnish small state realism, “the



worst”, of course, was the actualization of the threat of Russia in the context of great power politics.

Following on from this, Finland has traditionally stressed the importance of indigenous, self-sufficient preparedness – both in national defence and security of supply – more than many other nations. For example, the explicit core of the traditional Finnish security-of-supply paradigm has been based on the worst-case (military) crisis scenario. In other words, crisis scenarios where exceptional measures, such as security-of-supply actions, would be needed in full have been primarily focused on a traditional inter-state conflict. As one cannot fully rule out the possibility of the use of military force against Finland, this remains the initial premise for the overall Finnish security and defence policy, as well as security-of-supply considerations even today. However, there is an increasing awareness that this traditional model needs be adjusted to today’s needs.

In fact, the Finnish debate on national security has experienced a cognitive transformation. The ways of imagining a possible crisis or a conflict increasingly account for non-traditional security threats as well as a transforming concept of the security of supply, and concentrate on the possibility that national links with the surrounding world might become either sources of threat or come under challenge. The slogan “Finland is an island” echoes in Finnish discussions about the country’s security, economy, and identity. The main crisis scenarios commonly revolve around its shipping lanes in the Baltic Sea closing or being threatened with closure. Since the Baltic Sea is also the main artery for Russian energy transports, it is easy to see how these scenarios of the Baltic maritime flows might capture the dynamics of a potential regional conflict. However, it should be noted that many of these flow crisis scenarios still have the state, as a territorial entity, as their central focus. States are one, if not the central nodes in the global network of flows. This fixed type of flow scenario makes it possible to talk meaningfully about Finland as an island in a sea of flows. This “archipelago” metaphor – namely states as islands in a sea of flows – is useful in highlighting the high degree of Finnish interdependency and its high reliance on flows.

During recent years, the Finnish security and security-of-supply policy premises have been – and still are – transforming. Undisrupted global flows are essential for the movement of people, information and goods across national borders. The world has been rapidly shrinking during the last few decades. Technological development has enabled the growth of transnational interaction, albeit unequally

and asymmetrically. This has resulted not only in accelerating speed of change, but also changes in contemporary geo-politics. In particular, it is possible to argue that the traditional territorial and state-centric geopolitics is transforming towards – and competing with – the geopolitics of flows, which highlights the growing importance of functional and transnational networks of global flows that penetrate sovereign territorial space and rely on extra-territorial and extra-sovereign spaces, namely the global commons.

What will this growing emphasis on global flows and global commons mean for contemporary geopolitics? The shift towards the geopolitics of flows has already had an impact on the threat scenarios, concepts, capability development and future tasks of the security and defence sector in various nations, most notably in the US. The global interdependency seems to imply the immense importance of securing the key global and regional economic (financial market), commercial (sea and air traffic), information (data networks) and military (military power projection) flows. Following on from this, recent strategic documents emanating from the US and NATO have started to emphasize the task of securing the global commons and global flows, as opposed to stabilizing conflictual societies, as an indispensable element of the existence and functioning of the contemporary world order (e.g. NSS 2010; SUSGL 2012; AAGC 2011). This is something that recent strategic documentation in Finland has also begun to emphasize (FSDP 2013).

This report argues that understanding (geo)political changes in the framework of global and regional interconnectedness and interdependency is likely to become increasingly vital for national security in Finland and elsewhere. For example, the emphasis on global flows – and their potential insecurity – will have implications for the security of supply in the energy, resource, information and logistic sectors around the world. This highlights the need for an informed and up-to-date strategic situational awareness vis-à-vis the emerging world of global flows and its trends, transformations and consequences – many of which also call for critical thinking. This is no less true in the case of Finland.

### 1.3 OUTLINE OF THE REPORT

Stemming from these premises, the report starts with an analysis of contemporary geopolitics and develops a political ontology of global flows.

*Chapter 2* argues that global and regional orders are increasingly premised on and shaped by global flows. Many of these flows have a hub and spoke mobility dynamic. Namely, the mobility of people, goods, and services differentiates localities depending on their ability to act as hubs and relay nodes for the defining global activities, such as trade, resource, and financial flows. This means that the local intensity and regularity of the flows is an increasingly crucial indicator of a locality's economic viability and of the national political strength. Comparing the situation to the older, more territorial international order, the securing of a steady access to the global flows poses a different set of domestic and foreign policy challenges to states in general, and to small states like Finland in particular. Arguably, the flow effect is differential in that small states – due to their more limited resources and highly specialized economies – face inevitably stronger and more immediate adaptive pressures. The chapter argues that global mobilities and circulations are increasingly challenging the traditional state/territory-based geopolitics, thus rendering old policy solutions, such as national self-reliance, increasingly ineffective. Instead, the chapter develops a new theoretical approach for understanding the contemporary geopolitical reality, at the core of which is the shift of emphasis from strict territorial sovereignty to a more mobile yet power-laden world of global flows, and consequently also from strict territorial security to flow security. Sovereign territorial states are not expected to disappear, even if their functions and interests are assumed to change towards the flow paradigm. Most likely, states will remain as key nodes in global networks of flows, for example as (in) security providers and norm and practice entrepreneurs. The most powerful states, particularly the US, are likely to be, and remain, the most powerful public nodes.

*Chapter 3* focuses the analysis towards the so-called global commons. Global flows typically originate and end up in the territory of sovereign states. However, they are physically enabled by and take place in areas that are generally understood as being beyond traditional sovereign space and sovereign jurisdiction, and consequently also open and available for use by anyone – that is, in spaces often referred to

as the global commons. They include four commons domains: the international high seas, international airspace, space and, most recently, the human-made cyberspace. These spaces of global flows, even if outside the direct formal responsibility and jurisdiction of sovereign entities, are of crucial interest for the contemporary world order. In fact, so great is their importance that they are often identified as the connective tissue around our globe upon which the security and prosperity of most, if not all, nations depend. From this perspective, the global commons constitute the arteries that enable the heightened states of global connectivity and circulations.

These extra-sovereign spaces are increasingly important as a result of the expansion of the global flows of finance, trade, commerce and even military power, which all rely on assured access to, and free use of, the global commons. Global commons provide substance to global interdependency, making possible the existence of production capacity away from the primary global markets. The growing importance of the global commons leads to a demand for flow security. The flow of critical resources has to be assured and stable in diversified value, production and logistic chains that stretch across continents. Flow and its security are becoming increasingly vital for producers and users of resources.

*Chapter 4* shifts the analysis from the global commons in general to the global maritime domain in particular. The outsourcing of production has led to a situation where products flow from Asia to the main markets in the US and Europe. At the same time, raw materials have to be shipped to production sites in Asia. Asian nations, most notably China, are dependent on the increased global production of raw materials shipped from faraway places, such as Africa, and on maritime corridors and strategic straits, such as the Malacca Strait, through which maritime transport passes.

This dual movement of products and resources has led to a significant intensification of sea traffic – namely, in global trade flows. Recent years, however, have witnessed several radical changes to the international maritime security environment, resulting from a number of concurrent and reinforcing global trends. These geo-political, environmental, legal, technological and even physical changes are reshaping the nature of the maritime commons and driving its fragmentation. The resulting new maritime context is simultaneously more connected and more contested. In this new world, “every shock, every disaster” is now truly “felt in the antipodes”. More than ever, developments in faraway maritime regions reverberate with increasing speed around the world, while a resurgence of nationalism and growing competition over

resources serve to tighten the noose on the international freedom of navigation. These growing vulnerabilities and increasing fragmentation challenge the openness of the maritime commons.

A gradual “re-territorialization” of the seas appears to be one potential consequence of these developments. Several rising powers have displayed a growing willingness to contest the existing limits of their territorial waters and to regulate access to their exclusive economic zones (EEZs). Due to the nature of international law, these claims may well give rise to changes in customary and regional law, allowing for a greater regulation of navigation through EEZs and a de facto re-territorialization of some maritime spaces. Moreover, states and multinational enterprises are no longer the only actors within this diverse and contested maritime environment. The growing density and importance of maritime flows has also encouraged the growth of illegal maritime non-state actors, such as pirates, terrorists and criminal syndicates. These actors can create international bottlenecks by limiting the freedom of navigation in ill-controlled areas and by leeching onto existing maritime flows. Together, these changes make for an increasingly complex and contested international maritime environment that may endanger the freedom and assuredness of global flows.

*Chapter 5* analyzes changes in the Finnish maritime domain in particular. The maritime logistics that facilitate Finnish trade activity cannot be replaced by any other means of transportation. It is thus relatively obvious that not only is the Baltic Sea important for Finnish trade, but that any disruptions in Baltic – or even global – maritime flows would pose a serious threat to the Finnish economy and to the critical functions of Finnish society.

The Baltic Sea is the most important maritime area, and a space of flows for Finland. At the same time, however, it is a relatively well-studied maritime domain. In fact, the more acute and severe knowledge gaps concerning the broader Finnish maritime environment are elsewhere, particularly related to the opening Arctic region – its causes, consequences and, to the extent that it is possible to assess, its potential future trajectories. Because of this, the focal point of the analysis of the broader Finnish maritime domain will be on the transforming Arctic and its implications for Finland.

The Arctic is in many ways a new foreign policy frontier, not least because it has become an increasingly exciting part of contemporary global politics during the last decade or so. Due to climate change and technological innovations, the Arctic is becoming more accessible

for human activities. These enabling factors suggest that the forces of globalization, such as global trade, financial and logistic flows, may dislocate many Arctic localities away from their previous places on the geographical map towards a global hub-and-spoke modality. At the same time, the Arctic is potentially emerging as a space of global flows, or at least there are great expectations of this happening.

The transformation of the Arctic region may have significant implications for Finland. Finland, a peripheral “island” isolated by the Baltic Sea, might face geopolitical relocation if the emerging Arctic maritime environment – especially the Northern corridor – opens up and the Arctic resource bases are exploited in more significant volumes. This may be reinforced by the emerging nexus between the opening Arctic and the already active Baltic Sea region. This will be especially true if, for example, the existing plans for new railway and other transport connections in the Arctic-Baltic Sea nexus are realized, and new datacentres (the Google centre in Hamina, the Microsoft centre potentially in Oulu) and data cable connections (the Baltic Sea cable from Finland to Germany and the trans-Arctic cable via the Northern Sea route) are materialized in full. In other words, the Finnish political geography could become significantly altered if the Arctic region was to transform into a major constitutive part of the global hub-and-spoke structures of natural resource, logistical, information and other flows. This calls for a comprehensive and critical analysis of the opening Arctic region and its consequences. In our analysis, we focus on three key factors that are likely to affect the potential emergence of global Arctic flows: global geopolitics and geo-economy, regional conflict potential and practical challenges to economic activity.

*Chapter 6* analyzes further the implications of the geopolitics of flows for Finland. It starts by investigating the Finnish national mindset and especially the influential “Finland-as-an-island” metaphor. This metaphor requires more detailed and in-depth examination since it illustrates many characteristics of the Finnish sense of global interconnectedness that affects its geostrategic vision, strategic preparedness planning, and especially overall security of supply. It is also a telltale sign of the Finnish adherence to isolation, self-reliance, and safe haven imagery in a world where such conceptual tools do not produce any added value and, on the contrary, might cause great harm.

The chapter argues that contrary to the isolationist tendencies and “island mentality”, the cognitive mobility of our times seems to favour the scenario of *Finland as a bridge or link*. The chapter argues that this scenario was, in fact, already prevalent in Finland during the

Cold War. It has resurfaced in the recent national branding projects where Finland is viewed as a mediator and problem-solver. In this way, Finland can be seen as a bridge, connector, or mediator. For example, it is possible to claim that the history of Finland is about its links with the outside world. This connector scenario seems to have evolutionary advantages in the world of global flows.

The change of meaning away from the orthodox spatial, territorial, and locational attributes towards flow and mobility resiliency reframes how crises and conflicts are thought to evolve. They are increasingly visualized and viewed as having a transnational “flow” aspect. The central scenario of crisis as a process is increasingly geared towards imageries of flows, spreads, contagions, as well as access points, corridors, and networks.

Stemming from this, the chapter goes on to analyze the possibilities of national preparedness planning in the age of global flows. “Preparedness planning” refers to the range of actions carried out by national authorities, often in co-operation with the private sector, to secure Finnish military security, the critical functions of Finnish society, and Finnish security of supply. Drilling down, the chapter first analyzes the implications of the “Finland-as-an-island” paradigm vis-à-vis the Finnish defence and security policy, and illustrates some of the ongoing changes regarding the paradigm, as well as the defence and security policy itself, including military security of supply. It is emphasized that (perceptions of) global interconnectedness and interdependency are increasingly affecting Finnish defence and security planning. Although Finland is officially a non-aligned country, its national defence has essential international enablers, without which a credible national defence capability is seen to be impossible to maintain.

Next, the chapter goes on to investigate in more detail the transforming approach to the overall security of supply in Finland. The chapter underlines that (geo)political changes in the framework of global and regional interconnectedness and interdependency are likely to become vital for overall national security, including in the more limited sense of security of supply. For example, the emphasis on global flows – and their potential insecurity – will have implications for the security of supply in energy, resource, information and logistic sectors around the world. As Finland is likely to be increasingly dependent on global flows of goods, finance, and ideas, autonomous and self-sufficient national preparedness, and particularly security-of-supply actions by national authorities, are considered to be increasingly

difficult. This has resulted in the emergence of a new paradigm for security of supply that foregrounds the ideas of complex continuity management and national resilience. The notion of security of supply is being – and must be – re-conceptualized and re-understood as a practice of continuity management of the whole Finnish society, which can only be, albeit with limits, safeguarded with integrated national and international efforts by the different sectors of the government and civil society. This entails the growing recognition that the security-of-supply perspective should be integrated “by design” in every policy field, and not only in the work of different security sector actors.

The chapter concludes with a reflection on some of the key aspects of future security-of-supply planning for a small state like Finland. It is suggested that the ongoing transformation of the security-of-supply paradigm further entails that national efforts at maintaining security of supply in Finland are likely to take place at various levels, in multiple forums and by numerous actors – within and without Finland itself. This complexity means that effective security-of-supply planning requires an increasingly holistic approach that takes into consideration a range of technical, political and politico-strategic aspects – both domestically and internationally – that are likely to affect the future security of supply.

*Chapter 7* concludes the report and discusses the Finnish geopolitical position as a basis for future research. Stemming from the analysis of the broader Finnish maritime environment, and especially the Arctic, the report concludes that while Arctic geopolitical interests are increasing and the conflict potential is low, it is likely that it will take decades for the political stakes to rise to a level that would make the region central to global geopolitics and global flows. Similarly, due to serious challenges, the Arctic economic boom will probably keep itself waiting, at least for a decade or two. Thus, there is no indication that the Finnish geopolitical positioning would change considerably in the near future due to Northern developments. The Baltic Sea region will continue to be the most important maritime region for Finland for the foreseeable future.

Looking to the future, it is important to note that the Finnish maritime domain is not about ships and water alone. It is about increasingly complex human activities with different implications for Finnish security and prosperity in general, and security of supply in particular. In several respects, these activities are transnational and rely on global flows. The sea as a context conducts information and resources that are not tied to container ships. The activities are



inter-domain, namely highly integrated into the existence of space-dependent navigation and the cyber-based inventory – as well as other critical systems.

It is vital to note that being integrated into the global flows poses not only opportunities, but also vulnerabilities and threats. For instance, if the planned data-cable connection linking Europe and Asia through the Northern Sea Route materialized, Finland could increase its geopolitical relevance. This will be the case only if the planned data-cable connection from Finland to Germany materializes and Finland duly attracts more data centre and cloud computing services. In this case, Finland could have some role in the global data flows as a relevant connector. However, one should note that while the new connections could increase the diversification and resilience of Finnish data connections, the increased role as a major connector would also increase Finland's relevance as a strategic target.

In sum, the report highlights two contending scenarios as a starting point for future research:

1. Security as defence
2. Security as resilience

Although the second scenario appears to represent a rational strategy of diversification, it can pose a security risk from the perspective of the first scenario. When Finland turns itself into a connector (in the inter-domain sense of the word), it exposes itself as a strategic target – in the same way that the Suez Canal can constitute a problem.

The scenarios are partially contradictory. However, there is a discernible trend away from the first towards the second. This is caused by the flows. The business models of production (goods, materials), finance (capital), knowledge (information and innovation), and security (military and societal) are increasingly interdependent and dynamic. So it increasingly makes sense for Finland to adopt the second resilience scenario in order to make it attractive to the flows. But this will lead to increasing geopolitical and geo-economic insecurity in terms of the first security scenario.



2



## 2. The political ontology of global flows

### 2.1

#### INTRODUCTION

Global and regional orders are increasingly premised on and shaped by global flows. Many of these flows have a hub-and-spoke mobility dynamic. Namely, the mobility of people, goods and services differentiates localities depending on their ability to act as hubs and relay nodes for the defining global activities, such as trade, resource, and financial flows. This means that the local intensity and regularity of the flows is an increasingly crucial indicator of a locality's economic viability and of the national political strength.

Comparing the situation to the older, more territorial international order, the securing of steady access to the global flows poses a different set of domestic and foreign policy challenges to states in general, and to small states like Finland in particular. At the moment, small states have to cope with the cross-current between co-existing geopolitical realities: the more dynamic flow-centric one that is emerging and the territorial state-centric one that is receding, or at least transforming. The general trend is that the global mobilities and circulations are increasingly challenging the territorial state-based geopolitics and rendering old policy solutions – such as national self-reliance – increasingly ineffective. Of course, territorial states will not disappear from the political map, but their meaning and role will transform. Most likely, states will remain security providers, but their focus is likely to emphasize the (in)security of flows as opposed to national territory as a whole.

Arguably, the flow effect is differential in that small states – due to their more limited resources and highly specialized economies – face inevitably stronger and more immediate adaptive pressures. Global flows of production, finance, knowledge, and security embody the age of tighter yet asymmetrical interdependence in the hierarchical global order. Small states, in particular, are likely to exhibit greater dependency on other (larger) states and non-state actors, and these uneven relations and flow dependencies reveal a lot – although certainly not everything – about the distribution of power globally. The slogan of the day seems to be that, for small states in particular, the securing of access to these flows is crucial, but also harder. On the other hand, agility is seen as a virtue for small states. They have been relatively exposed to the fluctuation in international trade. Moreover, their adaptive strategies are already dependent on the recognition of the global interlinkages due to their more specialized economies.

At the same time, there are demands for resilience and societal stability as the differentially exposed small states face the cumulative and potentially disruptive effects of the global circulations. As new regions or sub-regions – such as the opening Arctic or parts thereof – become linked to the global flows, the political geography will be significantly changed. These “privileged” places will become re-contextualized as parts of the emerging global hub-and-spoke structure, rather than within their traditional national or regional context. They have many access points to the flows. They are places that enjoy the benefits of proximity to major harbours, airports, and fast connections to the digital realm. They are places where major corporations provide services and solutions for being connected through sea, air, space, and cyberspace. They also harbour good public infrastructure, services, and knowledge/education systems.

This chapter investigates the transformation in geopolitical cognitions and reality. This investigation is premised on a key theoretical research question: How should the contemporary political space be understood? The chapter argues for a new theoretical paradigm for understanding the contemporary geopolitical reality at the core of which is the shift of emphasis from strict territorial-based conceptualizations to a more mobile yet power-laden world of global flows, and consequently also from strict territorial security to flow security.

## 2.2 THE EMERGING GEOPOLITICS OF FLOWS

This report argues that there are three common and co-existing templates that give meaning to territory: state-based, empire-centric, and the nomadic flow model (Mayer 2014). The political world map usually points to two types of human artifacts: borders encircling territorial states and land-based logistics networks, namely roads and railways. To a large extent, the modern geopolitical and geostrategic imagination has so far been focused on *borders* and *delineated territories* in particular. For example, the overall European territory filled by clearly demarcated states has been seen as stable and ordered. The contemporary European state mosaic gives meaning to territoriality. The rules and norms – embodied by the Organization for Security and Co-operation in Europe (OSCE) – are meant to provide the prescriptive force for the relative stability of state boundaries and territories, and for the European political order.

This amounts to the *traditional “billiard ball” model* of international politics: states are unitary actors with a monopoly on violence in a given defined territory, and they engage in international affairs as powerful, separated territorial wholes, pushing and pulling each other in the whirlpool of politics. As Arnold Wolfers (1962, 19) once characterized the model, “every state represents a closed, impermeable, and sovereign unit, completely separated from all other states”. The traditional world map in Figure 1 is the perfect visual metaphor of this insofar as it says pretty much everything that needs to be said about which actors matter and where the political concerns lie in international politics: territorially bounded and bordered sovereign states.

But this is also a notoriously simple – and for many also deceptive – idea for at least two specific reasons. First, political thought that is based on a theory of juridical sovereignty tends to understand the nature and workings of power in a very limited way, by foregrounding “compulsory” at the expense of, say, “productive” or “structural” forms of power (Barnett and Duvall 2005). This neglects a broader – in the sense of “softer” and “smarter” – understanding of what it means to govern today: to shape preferences, mould behaviour, set standards, create norms, establish new ideas, and thus ultimately also attract, instead of merely or even mainly commanding or coercing individuals or collectives. As Michel Foucault (2005, 36) once put it, the traditional theory of sovereignty “is bound up with a form of power

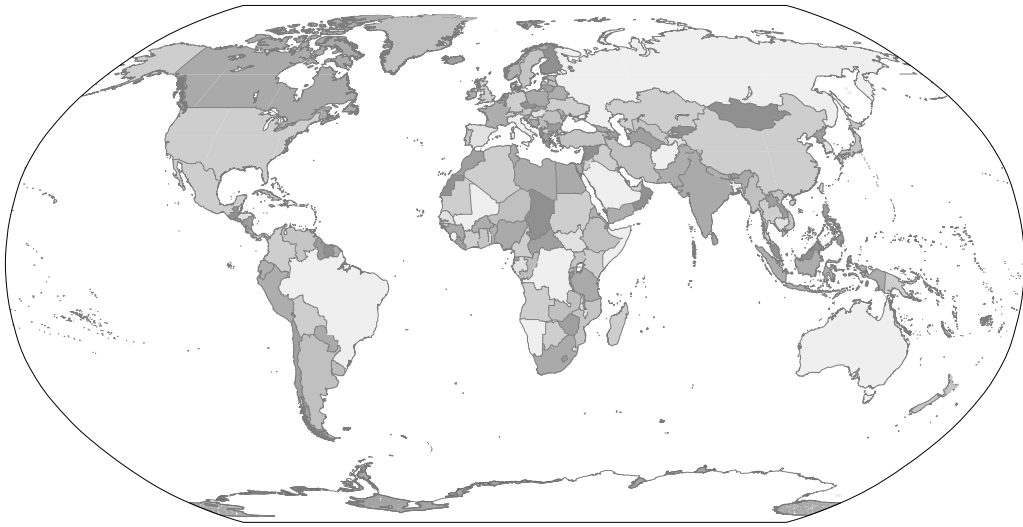


Figure 1:  
Traditional state  
(and Euro) centric  
world map  
(Source: CIA 2014)

that is exercised over the land and the produce of land, much more so than over bodies and what they do”.

Secondly, the political imaginary of territorially-bounded sovereign states limits how we are able to understand the political and economic world and its key actors today. John Agnew (1994) has famously called this imaginary the “territorial trap” of modern geopolitical and international thought. In this cognitive model, according to Agnew, the “geographical division of the world into mutually exclusive territorial states [...] has served to define the field of study”. More importantly, he went on to argue that such a political imaginary does not capture the world as it is, but in fact works to sustain a particular way of being: “[t]he division of the world into territorial entities we call ‘states’ *produces* actors that operate on a territorial definition of space, i.e. a world divided into discrete and mutually exclusive blocks of space”. Conversely, then, the transformation of geopolitical reality is ultimately, and intimately, related to a new definition of political space. Political reality and cognitions about it are co-constitutive.<sup>1</sup>

However, this prevalent state-based model and its political imagination of “discrete and mutually exclusive blocks of space” can be contrasted with alternative *imperial models* with a more flexible understanding of political space. Empires have been characterized by a relatively flexible and fluid outer perimeter. Often, the boundary is

1 For a theoretical discussion on the status and role of “reality”, see e.g. Käpylä and Mikkola (2011).



better understood as a borderland or frontier than a fixed borderline. These tributary systems and territories are under the influence of the central governance, but not necessarily directly.

This imperial imaginary has its roots in the pre-modern era. One example can be found in the territorial imagination of the *Roman Empire* (Lintott 1981, 65; Luttwak 1979, 17–19). The limits of Rome were not precise in the sense of the modern-day state's clearly demarcated and secured borders. To a significant extent, the limits of Rome were its *main roads* and various access routes, illustrated in Figure 2. The power of Rome was tied to the uses of this extensive network of roads. Most of the Roman legions, for example, were based along these main arteries of the empire.

Figure 2:  
An illustrative  
map of the  
Roman Empire  
based on the  
network of roads  
(Source: Scheidel  
and Meeks, 2012)



This geostrategic vision was particularly relevant during the so-called Julio-Claudian system, in an era that spanned from Augustus to Nero (circa 27 BC to 68 AD), during which Rome had yet to establish anything resembling a demarcated imperial frontier or fixed frontier defences, including permanently stationed legions in massive stone

fortresses. Instead, Roman borders were fuzzy and its legions served as mobile striking forces which, while deployed along major routes and into high-threat sectors, were not tied to what might today be called a strong territorial defence against external intrusion. In fact, at the time, Rome's security threats were primarily internal, related to local insurrections due to its unwelcome taxation and conscription policy, while the most severe "systemic" threat from Parthia in the east was primarily regional in scale. Roman legions were thus mobilized via the road network to quell local insurrections, to intimidate client states or tribes on the outskirts of the imperial sphere of influence, or to wage wars of conquest outside the sphere. All this meant that Rome had "no *limes*, in its later sense of a fortified and guarded border" and in fact it was precisely "the *absence* of a perimeter defense that is the key to the entire system of Roman imperial security of this period" (Luttwak 1979, 19).<sup>2</sup>

In a similar vein, albeit primarily in the maritime domain, the territorial imagination of the British Empire put a special focus on (securing) the free and open *international maritime highways* – one of the so-called "global commons" – that supported the exploitative economy of the Empire and facilitated the flexible projection of maritime power in distant places. As Joseph Nye (2002, 143–4) has argued, Great Britain was the "preponderant power" of the era that produced and attended to three key "global public goods" that served its own strategic interests, namely the maintenance of the balance of power in Europe; the promotion of an open international economic order; and importantly here, the maintenance of open international commons, namely open and free high seas through the suppression of piracy. This idea of the importance of hegemonic control of the high seas and maritime flows therein was later introduced into early US geostrategic thought and popular discourse by Alfred Thayer Mahan (Murphy 2010, 31).<sup>3</sup>

2 Luttwak (1979) writes, for example, that: "There were no guards and patrols to prevent infiltration of the 4,000 miles of the imperial perimeter on land; there were no contingents of widely distributed mobile forces ready to intercept raiding parties or contend with localized attacks; there was no perimeter defense. In other words, there was no *limes*, in its later sense of a fortified and guarded border. At this time the word still retained its former [...] meaning of an access road *perpendicular* to the border of secured imperial territory; *limes* thus described a route of penetration cut through hostile territory rather than a 'horizontal' frontier, and certainly not a fortified defensive perimeter" (Luttwak 1979, 19).

3 For a discussion of the contemporary US position, see Aaltola et al. (2014).

It may be argued that the increasing transformation of the contemporary world order towards *a system of circulatory flows* is predisposed to rediscover these old Roman and British meanings of geography, geo-strategy, and security. Whereas imperial models emphasized a flexible understanding of state boundaries, the nomadic flow model further highlights the fluid nature of territoriality. Territory becomes a function of flows that take place across it. The flow-enablers and flow-drivers, such as roads, railways, harbours, airports, cyber-nodes, or financial centres, define the territorial extension of the flows. These territories belong to the hub-and-spoke constellations where connectedness is a key characteristic without which the territoriality of the connected political communities is hard to understand (see Figures 3-7).

This report argues that today, and in the foreseeable future, there is and will continue to be a growing focus on mobility, circulations and flows, and thus also on the *security of flows* – namely on the sites, spaces, technologies, and practices of flows (e.g. Adey 2004; Aaltola 2005; Amoores 2006; Carrera 2007; Vaughan-Williams 2008; 2010). The aim of this *flow security*<sup>4</sup> is to control the access to and from the main global flows that connect global remote extremities to the regional centres or spokes, on the one hand, and the spokes with the main global hubs, on the other. Securing access to the regularity of flow changes the meaning of security: traditionally, spatial or territorial entities – such as states – were secured. Now, the temporal and expansive flow-like processes and practices are increasingly being secured, as in the case of securing the maritime corridors around the Horn of Africa or Strait of Malacca (e.g. Hansen 2009; Chalk 2010), or securing air travel in most advanced airports today (e.g. Adey 2010). The regularity of the tempos of the flows and the steadiness of their pulse indicate a high level of security.

The era of global flows may be seen as the golden age of interdependence, yet it entails clear *challenges* and characteristic *anxieties*. The uneven spread of the “connectivity tissue” challenges the notion that interdependence is truly global. Even a cursory review of the connectivity maps in the different global commons reveals that the hub-and-spoke structure is limited by its western nature. In this

4 The idea of “flow security” is often linked to the former Swedish Prime Minister, Carl Bildt (2010): “Without necessarily making territorial security less important, I would argue that ‘flow security’ is the true challenge for the decades to come.” For a discussion, see Aaltola et al. (2014).

sense, the age of connectivity has dawned in Northern America, in Europe, and some parts of Asia (see also Box 1). However, this does not imply that the influences of the global flows are not global. The main arteries might bypass many regions and areas, but they change the geopolitical position of most if not all localities. In some cases, this repositioning results in increasing remoteness of the peripheries. This fuels global inequalities, political crises and migration movements. These developments further feed the chronic crisis factors – such as environmental problems, inequality, bad governance, lack of education, non-existent social mobility, diseases, and famine. The new golden age of global flows deprives those who cannot live off the flows. It also makes some regions more inclined to participate in living off the illicit flows, as the incidences of piracy in some areas suggest. The governance failures and failed polities in a few regions can allow unregulated forms of access to the global hub-and-spoke system. This fear will lead to the further curtailment of any access that these locations have to the global commons.

The main global arteries guarantee wide access to the most remote regional and global peripheries. This access is often seen as bringing with it many benefits, such as links to production sites, financial centres, knowledge hubs, and security producers. That said, the logic of interdependence is often facilitated, and restricted, by economic and politico-strategic considerations. From the economic perspective, flow arteries and their lesser veins tend to come into existence only insofar as there is profit to be made, not on the sole basis of their ability to provide public goods or services to wider populations. Thus, for example, the recent 2013 *Joint Barents Transport Plan* (JBTP) points out that the air traffic system in the Barents area has a “strong north-south structure” primarily due to economic reasons, but that east-west flight routes in the region would require public support, at least in the initiation phase, due to their unprofitability for private sector actors.<sup>5</sup> Similarly, the Northern Sea Route in the opening Arctic region is emerging – or will ultimately fail to emerge – as a potential global flow artery as a function of the increasing geo-economic interest in hydrocarbon extraction and maritime trade, made possible by global climate change.

From a politico-strategic perspective, flow arteries and their lesser veins come into existence if there is sufficient regional and global (geo)

5 According to JBTP (2013, 100), “[a] kind of Public Service Obligation (PSO) may be necessary to incentivize new flight services which are not initially profitable”.

## GLOBAL OR REGIONAL TRADE FLOWS?

A recent DHL report “Global Connectedness Index 2012” (Ghemawat and Altman 2012) argues that the effects of globalization have been exaggerated in many ways, and that in many cases increased regionalization would be a more accurate result of an analysis of international interdependencies. The report measures global connectedness with two variables: depth and breadth. Depth refers to the extent to which a country’s activities or flows are international versus domestic by comparing the size of its international flows with relevant measures of its domestic economy. Breadth refers to how broadly the international component of a given type of activity is distributed across countries; for instance the average distance traversed by international flows and the proportion of flows that take place between, versus within, regions of the world (ibid., 13–14). According to the report, the world is less connected than one might believe, and as such, notions of a “flat world” or the “death of distance” are exaggerations (ibid., 22). Distance still matters and most international flows seem to take place within, rather than between, regions. As an illustrative example of this, the distance between a randomly selected pair of countries is about 8,500 km. However, the average cover of merchandise trade, foreign direct investment flows, telephone calls, and human migration all cluster in the range from 3,900 km to 4,750 km (ibid., 9).

According to the report, prior to the financial crisis in 2008, exports as a percentage of world GDP amounted to roughly 30 per cent. However, if the world was indeed “flat”, this ratio should be close to 100 per cent since buyers would be no more likely to purchase goods and services from their home countries than from abroad. According to the report, “borders and distance still matter a great deal, implying that even the most connected countries have substantial headroom available to participate more in international trade” (ibid., 15). Potential gains from boosting global connectedness could reach trillions of dollars.

The report is a sober reminder that the mere technological possibility to “go global” doesn’t equate to a flat world. There are cultural, political, geographical and economic reasons for this. For example, countries with a common language trade 42 per cent more than countries that don’t share a common language, countries in the same trade bloc trade 47 per cent more, and when the geographical distance is doubled between two countries, their trade drops by 50 per cent. As the report states, “because countries in the same region tend to be closer together culturally, administratively and economically as well as geographically, it becomes unsurprising that half or more of most international flows occur within rather than between geographic regions” (ibid., 23). Illustratively of this, Finland’s top 5 merchandise export destinations are Sweden (12%), Germany (10%), Russia (10%), the Netherlands (7%) and the UK (5%) (ibid., 142).

However, even though most of the final product’s value may be generated intra-regionally, the production chain itself may be global. According to a recent report by ETLA (Ali-Yrkkö 2013), in consumer products such as jeans, shares of wholesale and retail trade, brand ownership and design constitute the major part of the final product’s overall value generation. The value of manufacturing and raw materials may be as low as 17 per cent of the overall value of the final product (ibid., 49–50). It is vital to note that the production chain itself relies on a stable, predictable and economically viable flow of resources and information. Production chains may be comprised of dozens or even hundreds of companies around the globe. The production chains may be so long and complex that most of the companies included in them don’t even know the overall structure of the chain (ibid., 40–41). These long production chains manifest themselves as large money, merchandise and service flows in world trade.

political interest working towards the establishment and securing of the arteries, such as the development of the necessary infrastructure for safe maritime navigation. Conversely, of course, local or regional contestation of global flow arteries by state or non-state actors creates uncertainty, interference, or even the disruption of global flows. For example, the practice of piracy around the Horn of Africa has increased the costs of maritime shipping (e.g. raised insurance premiums) and hampered the global flow of goods and resources (e.g. energy to and from the Suez Canal). In the Arctic, Asian nations in particular have expressed their concern about the Russian governance of the Northern Sea Route, and particularly the high icebreaker fees that might dim the attractiveness of the potential maritime route in the future.

The participation in the flow activity also catalyzes the production and diffusion of norms, practices, and standards. This fosters social learning, conditions governance institutions, and eventually influences how the flow practices – such as interoperabilities, norms, and standards – develop in the future. One obvious example of this is the recent attempt to create the so-called *Polar Code*<sup>6</sup> in the International Maritime Organization to govern the emerging maritime flows in the fragile Arctic (and Antarctic) waters, primarily by standardizing the design, construction and use of ships in the region. This standardization, as a more general phenomenon, raises various timely political questions vis-à-vis the global flows: Who, for example, has the effective power to influence the evolution of old – and the emergence of new – standards that regulate flow practices? To what extent are small “sovereign” nations, such as Finland, ultimately norm-takers and the more powerful states, most notably the US, norm-shapers of global flows? What is the role of private stakeholders in the process, such as powerful companies in the maritime transport or hydrocarbon extraction sectors? What part is played by international bodies (e.g. IMO) and forums (e.g. the Arctic Council) in negotiating and generating new standards and best practices?

Furthermore, the talk about cyber-crime, terrorism and human smuggling indicates that there is a darker side to the emergence of the age of flows. Unsanctioned or unsecured access to the main global flows is seen as a huge vulnerability. For instance, the regulation of licit flows and the filtering of the illicit ones is the main driver of maritime security institutions in the Mediterranean (e.g. Carrera

6 See IMO “Shipping in polar waters”, available at: <http://www.imo.org/MediaCentre/HotTopics/polar/Pages/default.aspx>.

2007; Vaughan-Williams 2008). Moreover, even sanctioned flows can turn into a vulnerability, as in the case of financial crises when the unexpected flows of capital – or lack thereof – may endanger the whole system of economic flows. Thus, the emerging sentiments are very much connected to the hopes and anxieties surrounding global life. The blend of declinism and revivalism as well as utopia and dystopia as lived life experiences are perhaps nowhere more apparent than in the global flow system. There are fears of crisis, contagion, and terror; however, they combine with feelings of resilience and opportunity.

Global flows are much like rivers. They mould the terrain in which they occur, both in terms of the human and the physical landscape. They create opportunities for both legitimate and illegitimate activity; the dynamics create political economies in the vicinity of flows. In this sense, they are characterized by constant flux. In other words, global flows create new patterns, disrupts old systems, and bypass existing interlinkages. As Arjun Appadurai (2000: 327) suggests, global flows are disjunctive and chaotic; they “follow increasingly nonisomorphic paths” and the “sheer speed, scale, and volume of [...] of flows are now so great that the disjunctures have become central to the politics of global culture”. The term disjunctive refers to flows being able to dislocate localities from their older places on the geographical map. For example, the maps of cyber-enabled social networking reconfigure the contemporary global space:



Figure 3:  
Map of  
cyber-enabled  
networking  
(Source:  
Aidwatch 2010)

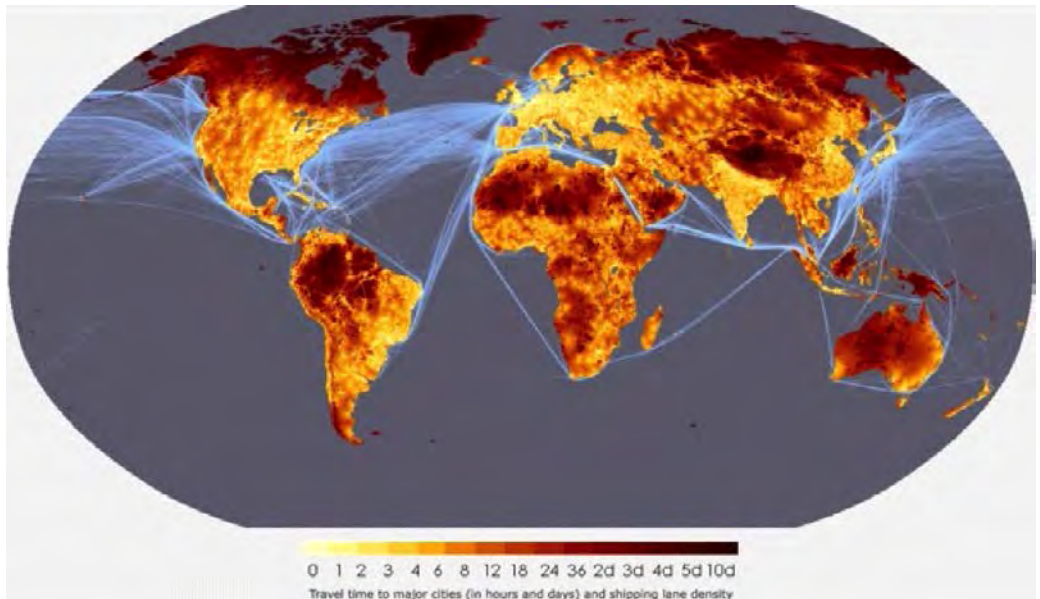
The above world map produced by Facebook about its “friends” fabric shows how the social network is unevenly distributed. Taking the disjunctive effect fully into account would produce the following map:

Figure 4:  
The global  
gravity point of  
cyber-enabled  
social networking  
(Source:  
Great Circle  
Mapper 2011)



This map locates the global gravity points of “friendship” flows in Palo Alto, California. Other places are arranged according to their proximity in terms of friendships. Consequently, the “globality” of flows in Facebook appears to be more intra-regional than genuinely terrestrial, and even the inter-regional connections seem to coalesce into main flows between the major regions. The “point of gravity” sites become re-contextualized as a part of the flow(s). They start to live off the flow instead of the prior physical location. The maps of disjunctive effects are many. In the global remoteness map, in Figure 5, it is possible to see how the speed of access – in hours and days – to a neighbouring city of 50,000 inhabitants or more can rearrange the signification of the global political map:





Although the disjunctive effect refers to the power of flows to reshape geopolitics and the geo-economy, it should be noted that – as in the above maps – the disjunctive effect is usually towards the direction of the existing global distribution of power and the power hierarchy.

While illicit flows of money, people, and criminal activity disrupt and alter their communities, the legitimate global flows may suffer from various interruptions and shocks wherever they occur. Similarly, it is possible to imagine how the emergence of maritime flows as a result of the proposed full opening of the Northern Sea Route across the Arctic Ocean would significantly impact the region where they occur. And sometimes, as was the case with illegal fishing and the dumping of toxic waste in the coastal waters of Somalia in the mid-1990s (e.g. Weir 2009; Anderson 2010; UNSC 2011) or the controversial and poorly regulated financial activities on Wall Street in the late 2000s (e.g. FCIC 2011), apparently legitimate international (maritime or financial) flows may in fact turn out to be illicit and have deep impacts on communities, the environment, the economy and the very capacities to engage in further flow activities at the receiving end. The impact, as the 2008 financial crisis clearly taught us, may even be global in scope. These, and many other global flows shape their local – sometimes even global – environment in various ways. However, at the same time, all flows are vulnerable to disruptions and shocks. The integrated logistics solutions

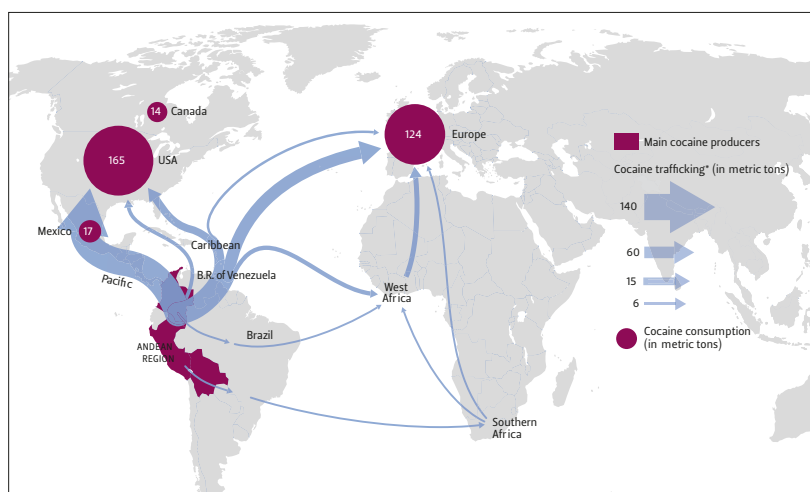
Figure 4:  
The global gravity point of cyber-enabled social networking  
(Source: Great Circle Mapper 2011)

involving sea, air, space, and cyber modalities are in a constant reactive mode of experiencing different types of “shocks” (Aaltola 2012).

Global circulations are increasingly vital and intense: they possess a vigour that transports goods and people across the globe. The security of the underlying flow system – namely *flow security* – is dependent on its hub-and-spoke infrastructure (e.g. Aaltola 2005). Paradoxically, this highly directed circulation cannot eliminate the factor of being exposed to complex sources of “eddis”. These eddis create over-flows, by-flows, and side-whirls that may even run counter to, and interfere with, the intended directionality of the overall dynamic. We have all experienced these as delays, cancellations, temper tantrums as well as flights running into major air turbulences. The personal-level mobility problems indicate that person’s remoteness from the main global centres. The smoothness and duration of transportation is indicative of one’s position in the effective global power hierarchy. Since the modern way of life is dependent on the global mobility system, the access to it signifies one’s ability to enjoy the “benefits” of the modernity.

The emerging, largely illegal shadow flows – such as drug smuggling, the arms trade and related money laundering, human trafficking, and some might even claim certain financial activities (e.g. in the minimally regulated and non-transparent offshore havens) – are gaining in importance (e.g. Lallerstedt and Wigell 2014). These shadow flows and circulations are as powerful as the modernity’s flow system in shaping the local contours of power. For instance, it used to be that local criminal organizations had a parasitic relationship with their local polities. This meant that the criminal organizations corrupted their

Figure 6:  
Map of drug  
flows into and  
out of Central  
America (Source:  
UNODC 2010)



local hosts. However, there was no incentive to completely paralyze or kill them off. This has been the case with the Central American drug traders. Now, the global flow is changing this situation. The criminal organizations are constituting networks and the drug trade activity is emerging as a flow. The flow of drugs across Central America is based on a new logic, illustrated in Figure 6.

The map shows the flow of cocaine from the production sites onto the markets, mainly in the US. The disjunctive effect is intense. It appears that the networked organization can live off the flow itself instead of the local polities. This gives the network immense economic and political power in comparison to the state and local polities along the flow. These phenomena are wreaking their destructive and crisis-inducing havoc in many parts of the world. If a local crisis is seen as being driven by this sort of logic, its management has to be radically re-evaluated. The ordinary crisis narrative that “root causes are always local” no longer seems as relevant as the sanctioned and shadow flows gain in prominence.

### 2.3

#### FLOW SECURITY AND POWER

The key to understanding the wider ramifications of global flows lies in examining their intimate relationship with *power* in its various forms (Barnett and Duvall 2005).<sup>7</sup> Flows characterize the crosscutting feature

- 7 Barnett and Duvall (2005) theorize power by focusing on two key analytical dimensions, namely on the *kinds* of social relations through which power works: relations of interaction or relations of constitution; and on the *specificity* of social relations through which effects are produced: specific and direct relations or diffuse and indirect social relations. This theorization produces four different forms of power. *Compulsory power* refers to relations of interaction of direct control by one actor over another; e.g. Actor A can force Actor B to do something that is in A's interest, but not in B's interest. Similarly, Actor B can demonstrate its power by being able to resist A's attempts. *Institutional power* refers to the control actors exercise indirectly over others through diffuse relations of interaction; e.g. when Actor A leverages an international institution to indirectly affect the behaviour of other actors. *Structural power* captures the constitution of subjects' capacities in direct structural relation to one another; e.g. when outside pressures affect the behaviour of actors and their communities as a function of their ability to resist or adapt. The pressures on states, state institutions and even individuals by the global financial markets are a case in point. *Productive power* entails the socially diffuse production of subjectivity in systems of meaning and signification: e.g. when specific discourses or discursive practices influence knowledge, feeling and perception by creating a common sense and shared habits with which agents react in the world, or conversely, when agents innovate and create new discursive resources and through them new practice.

of the interconnected global domain. Directly commanding the flows, directly or indirectly controlling their paths and practices, and finding ways to adapt to them are actions that signify power, or the lack thereof. Arguably, the global dynamic of interconnection is increasingly the basis of modern life irrespective of state boundaries. It is, as Sheller (2011, 2) observes, “the *sine qua non* of globalization” since “without extensive systems of mobility – and globalist, or neoliberal, claims for opening markets and states to external flows – social processes could not take place at a global scale nor be imagined as such”. However, contrary to the optimistic globalist views (e.g. Friedman 2007), this mobile fabric is not evenly spread throughout the global sphere and access to it is not assured to all actors to a similar degree. Some of them may, indeed, be in a state of imposed stasis as opposed to free mobility. The globalized world of flows is thus neither flat nor fluid, nor devoid of hierarchy and power relations.<sup>8</sup> Rather, its *corridors are highly differentiated and structured, and its practices often organized in ways that mirror the world order and its distribution of power*. Based on material technologies and on socially shared practices of interoperability, they tend to follow a *hub-and-spoke pattern* better known from the underlying structure of international air travel (see Figure 7) (Aaltola 2005).

The idea of the “*hub and spoke*” is a cultural trope that derives from, and sustains, the contemporary liberal global order spearheaded by the US. As an analytical model of socio-political organization, illustrated in Figure 8, it can be used to elucidate an ideal-typical imperial order and rule: “[i]deal-typical empires comprise a ‘rimless’ hub-and-spoke system of authority, in which cores are connected to peripheries but peripheries themselves are disconnected – or segmented – from one another” (Nexon and Wright 2007, 253). From a more concrete

8 A good example of the “flat world thesis” can be found in Thomas L. Friedman’s (in) famous book *The World is Flat* (2007, 3rd edition). In his book, Friedman argues how his first-hand experience of the advanced technology sector in India, to which Western production has been increasingly outsourced, made him think that “[t]he global competitive playing field was being levelled [and the] world was being flattened” (2007, 8), and “what the flattening of the world means is that we are now connecting all the knowledge centers on the planet together into a single global network, which – if politics and terrorism do not get in the way – could usher in an amazing era of prosperity, innovation, and collaboration, by companies, communities, and individuals” (2007, 8). However, and perhaps quite tellingly, he also points out how he “... actually found India and thought many of the people [he] met there were Americans. Some had actually taken American names, and others were doing great imitations of American accents at call centers and American business techniques at software labs” (2007, 5).



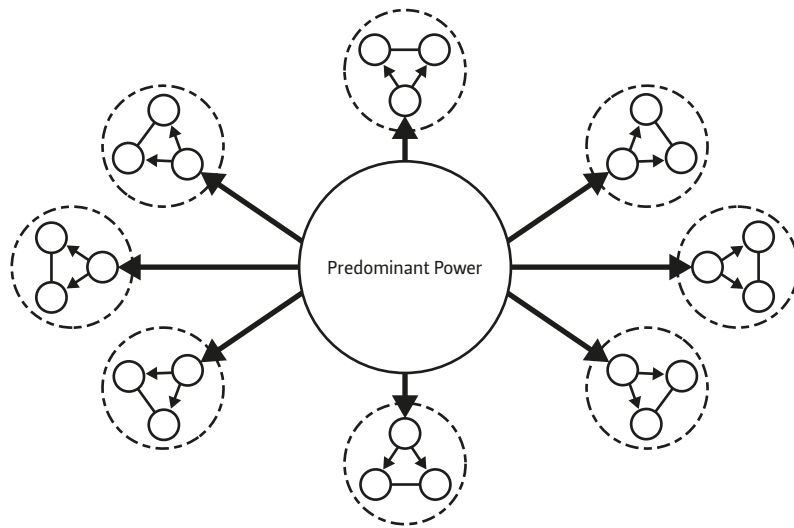
perspective, it may be further considered that the model has historical affinities with the practices of old European imperial rule. However, the more recent political origin of the model can be located in the Asia-Pacific security architecture – also known as the San Francisco security system – that was established after World War II and named after the place where the treaty was initially signed in 1952. In this system, the US acted as “the hub” that established and maintained a system of bilateral security arrangements with individual Pacific Rim states, acting as the “spokes”, without a strong multilateral regime. Thus, the model assumed not only that security and power flowed through Washington, DC, but also that any additional multilateral institution should include the US as a central organizing actor. Similar to the contemporary system of airplane routing, all the arrangements should converge in the US “hub” (Baker 1991, 92; Pyle 2007, 225).<sup>9</sup>

Power and mobility – two key features of the flow paradigm – can be seen as highly interchangeable concepts in the canon of Western modernity. This connection has long historical roots that have also influenced, and will continue to influence, Finland’s conceptions of

Figure 7:  
The combined international hub-and-spoke network of us Airways and American Airlines (Source: VoA 2013)

9 The case for a tight conceptual bridge between imperial governance structures and hub-and-spoke political architecture is often made in the research literature (e.g. Motryl 1999; Hafner-Burton et al. 2009; Kelly 2007; Smith 2005). For example, Phillips (2005, 3) sees that a distinctly “hub-and-spoke” set of regionalist arrangements in the Americas has allowed the us to “capture control of the governance agenda and to ensure that the regional economic regime takes a form consistent with U.S. interest and preferences”.

Figure 8:  
The ideal-typical  
imperial order  
based on the  
hub-and-spoke  
mode (Source:  
Nexon and  
Wright 2007)



its national role and power. The most influential manifestations of the “mobility and power nexus” in the flow paradigm can be found in the US geostrategic imaginaries. These imaginaries are important for two reasons: first, the US role in the development of the global critical infrastructure has been crucial in the technological, economic, and political senses; and secondly, US influence on the knowledge production concerning the conceptualizations of modern mobility has been notable. These imaginaries have also markedly influenced the Finnish framings of how vital it is to integrate into the global chains of commerce and finance.

The US mobility concepts are a blend of the empire and nomadic – namely flow-based – understanding of key mobility infrastructure and territory. Here, the mythical notion of the “frontier”, in particular, provides a case in point of how the US has seen itself as a power on the move (e.g. Eperjesi 2004, 59). Power, in a sense, is moving power, that is, power to produce, maintain and secure continuous mobility in the service of certain goals. This theme of “mobility as power” accords well with what Daileida (2008, 225) concludes under the heading “America on the move”: “[t]ransportation in all its modes embodies the uniquely American ideal of Manifest Destiny”. Daileida continues to make a point about the speciality of air mobility vis-à-vis the new “final” frontier: “[...] air travel made distance a completely manageable obstacle” (ibid.). Beyond facilitating the decreasing importance of space and distance, air mobility also enabled a new mode of mobile power that affected and re-contextualized older modes in the US and beyond, such as

the land-based mobile power of the railways. The horizon has since been pushed forward as space and cyber have been integrated into the technologies of mobile power in the US. This means that the mythical American notion of the “final frontier” has not posed a geographical barrier for a long time, but has been a function of making power as movable and mouldable as possible.

Of course, it is important to note that technology is always a double-edged sword. While it can and does promote new forms of movement, it has also been closely connected to managing mobility and creating stability in mobility, even creating immobility or the inability to move. Technologies for the management of crossing distance have allowed not only for highly regulated, but also for regular forms of power and governance. Technology becomes a tool in the process of controlling, ordering, and managing the consequences of the contingent human interaction. These tools for stabilizing the reality can be material, ideational or practice-related.

From this perspective, the flow is about mobility management through ideas, practices and embedded technologies. Steady governance – both national and global – derives from the engineering of various technologies of mobility. Many have argued that this governance mentality of mobile power has been developing towards an increasingly de-territorial and de-centralized global system of interdependence – a new flat “empire” (e.g. Hardt and Negri 2001). According to Urry (2009, 34), for example, this could mean the “emergence of a dynamic and flexible systemic structure articulated horizontally across the globe, a ‘governance with a government’ that sweeps together all actors within the order as a whole”. From a visual point of view, then, this involves a networked model: “a system of nodes and connecting lines that is replacing the world atlas”.

While these insights have been influential, the talk about the end of sovereignty, the death of the state, and the emergence of a de-territorialized and fluid networked world has been premature in the light of recent events. Most notably, such ideas were pretty much “shattered by the wars waged by the United States after the terrorist attacks of 11 September 2001” (Mouffe 2005, 108). While these engagements relied on co-operation with private systems and operators, even in the sphere of hard security, they also re-emphasized the importance of state power, and especially US state power, in the contemporary world order. Indeed, it is possible to argue that states will continue to exist and the existence of powerful states in particular will remain crucial even if the range and role of other actors – such as

corporations, the media, financial institutions, churches, humanitarian organizations, criminal organizations, private security firms, and so on – is increasingly apparent nationally, regionally and globally. Ann-Marie Slaughter, in particular, has argued for a networked perspective that highlights the importance of political, economic, social and criminal networks in transforming not only the international system but the role of states within it. She writes that we live “simultaneously in the world of states and the world of society” (2012, 45) in which “states [are] the principal hubs of intersecting regional and global networks instead of poles in a unipolar, bipolar or multipolar system. A state’s ability to position itself as close to the center of critical networks as possible and to mobilize, orchestrate and create networks will prove a vital source of power” (2012, 46).

That said, the *contemporary connected state is better seen as a smart network* that combines hard and soft power to achieve its national objectives on a global scale in the relative absence of extensive territorial possession.<sup>10</sup> Beyond harder power, it is the ability to set practices and standards – legal and technological, for example – for various domains and for interoperability. It may be argued that these objectives are shared by many “modern” states, from the US to Finland and beyond. As Slaughter (2012, 46) argues, the US strives to be “the most central node – the supernode – in the networks that are most important to advancing its interests and that are most connected to other networks”. On a more modest scale, the Finnish national strategies often emphasize the need for Finland to build connectedness – for example in terms of building undersea data cables, train networks, or modernizing and expanding harbours or Helsinki-Vantaa airport (e.g. VNK 2013). Today, this system of internationalized and connected states is increasingly part of, and seeks to secure, the networks of global flows.

In the nomadic mobility-centred paradigm, the scenarios of (asymmetric) interdependence are developing even beyond the static spatiality inherent in the term “network” towards conceptualizing global processes in terms of flows and circulations. The contemporary visions for the global structure are less and less static; instead, the imagery is more dynamic and fluid, yet paradoxically often stable and

10 Joseph Nye coined the term, “smart power” in 2004 to refer to a national power strategy based on a pragmatic combination of soft and hard power to coerce, punish and attract. As he put it, smart power “is neither hard nor soft. It is both” (Nye 2004, xiii). For recent discussions, see e.g. Armitage and Nye (2007) and Nye (2009).



regular as well. They bring into focus flows – both regular and unstable – that are becoming increasingly significant. It is based on a system where even the key nodal points may move, though their movement is not typically random (e.g. Friedman 1989, 384).

As people, goods and information flow, global power finds its concrete forms. Power is increasingly on the move. In this way, the power associated with small states like Finland, and with Finnish actors more broadly, is inherently labile. Its foundation stones are the flows where Finland is connected. Yet, these flows have a logic that is hard to control by territorial technologies alone. They seem to call for participation in the regional and global governance arrangements sustaining them – but always at the cost of (relative) political autonomy. Moreover, the regularity or irregularity of the flows have an expressive language whose grammar is becoming increasingly central to how the actors' power and security are benchmarked and evaluated. How smooth is Finland's access to the global flow dynamic? How well are the access points secured? How resilient are they and how firmly is their continuation guaranteed? How can Finland secure a more stable hold on these access points? A further important problem deals with the ability of Finland and actors associated with Finland to attract the building of further access points (harbours, airports, data cables, cloud servers, etc.). And lastly, there are of course questions that deal with the positive and negative effects of flows and changes in them on a small nation. How is Finland affected by global flows (e.g. global financial flows)? And conversely, can Finland affect their substance or form, or should it settle for adapting to them as best it can? What is the best way to adapt?

It is possible to argue that Finland's security is increasingly connected with the reliable rhythms of its maritime, air, space, and increasingly cyber-based mobility systems. In most cases, the humming regularity of the intertwined national, regional, and global flows constitutes and signifies Finland's power as an effective mover in the global political economy. In many ways, the opposite is equally true: disturbances in the dynamics translate into a lack of – or diminishing – power. They signify a Finnish state in decline, unable to cope with the adaptive pressures of the flows.

Moreover, the flow specificities are becoming increasingly expressive and embodied. Various actors and the public at large are making sense of their regional and global surroundings through the increasingly nuanced and sophisticated language of flow movements, such as regularity, resilience, disturbances, disruptions, and

counter-flows. It's about them acquiring a feeling for their wider political identities and embodiments. The answers to the question "Who am 'I', 'you', 'we' and 'they'?" are increasingly embedded in the perceived mobilities – namely the sense and feel of things moving and in movement – of the flow systems. In Finland, this means that citizens are sensing their global position and the health of their state through the ease with which they can travel, surf the internet, use the banking system, or order goods online. Often the need is expressed to make these embodied mobility patterns more resilient. Problems in these flows that were tolerated in the past are now being regarded in a much more negative light as the technological systems and flow practices are deeply integrated into life support systems. The tendency of individuals or communities to use the flows as indicators of their moving position in the global hierarchy of power explains one focal point of the nexus between mobility and political power. Finland's and associated actors' global position is increasingly dependent on the (ir)regularities of its access points to the global flows. Thus, national power and interest in a small state are increasingly becoming entangled with flows and mobilities.

#### 2.4 FLOW CRISIS AND DISRUPTIONS

Despite their importance in the contemporary world, it seems evident that the global flows themselves can turn into new contexts of crisis. The recent cases of piracy off the coast of West Africa or in the waters of Indonesia demonstrated the potential ramifications of a flow disruption and, on the other hand, the resilience practices of the maritime shipping and state actors. In the same way, the problems with underwater digital cables have caused widespread disruptions, for example to the banking systems (Matis 2012). Thus, it is clear that problems in flows can lead to wide societal disruptions and even crises. The local, regional, and global crises can be instantiated by flow-related problems. The root causes of crisis are, from this perspective, not local. They are caused by the specificities of the global licit and illicit circulations.

Besides bringing new types of "flow crises", the flow paradigm also offers a new perspective on older, more traditional forms of crises. Namely, the flow dimension is increasingly present in the more traditional "local" crises. This dimension can manifest itself

in the following ways. First, at the same time, there is an increasing recognition of the flow-related dynamism of any local crisis. They create particular political economies that rely, for example, on transnational circulations of soldiers, funds, weapons, blood resources (minerals, drugs, etc.), and refugees. It should be noted that both the licit and illicit flows can and often do take place in the same flow corridors. Second, there is a growing awareness of the various ways in which a territorial political crisis may spill over to disrupt the steadiness of the global flows. The more traditional types of crisis can become re-contextualized as they interfere with the regularity of the sanctioned global flows. This scenario was exemplified when the state failure in Somalia spilled over to the Southern maritime corridor of the global economy that runs through the Gulf of Aden. The piracy problem led to a multinational military effort, including the EU naval operation ATALANTA,<sup>11</sup> to contain the threat of piracy from land. The piracy problem and the multinational/EU operation as a response to it can be seen as portents of what the future *flow crisis management* might look like. Third, as access to the global flows is becoming imperative to states, different sanction regimes imposed on them are in fact part of the emerging flow politics. The sanctions against the Iranian nuclear programme, for example, are forcing it out of the global flow dynamics and, therefore, denying it important sources of financial and political capital. Russia might be facing a similar kind of situation following the crisis in Crimea and, more broadly, in Ukraine. Contrasted with the “carrot” of having access to the global flows, the “stick” of sanctions gains its conditioning power.

Besides the crisis in the flows themselves, the circulatory and flexible flow system can become a constitutive feature of a local violent crisis. The claim that global flows are often connected with those of global security and order is receiving increasing attention. These flows are seen as significant structures of the prevailing world order and the most visible articulations of power (Urry 2009, 32; Adey et al. 2007, 780). The overall mobility system is the beacon of modern, liberal, and cosmopolitan ideals of diffused power (Fuller and Harley 2005; Kesselring 2008, 86). Yet, despite the appearance of a smooth flow, these cosmopolitan spaces are enabled by and further constitute the contemporary illiberal and even totalitarian structures of security and power (e.g. Agamben 1998, 123; Dillon and Reid 2000, 117). Furthermore, the flows can become significant crisis factors. The

11 See Council of the European Union (2008) and Helly (2009).

global circulations of goods can trigger, accentuate, and prolong a local crisis. For example, it has been often noted how global circulations of “blood” resources of different types propel local political crises (e.g. Banat 2002; Campbell 2009). Similarly, the above-mentioned circulations of financial capital may cause regional (the “Asian flu” in 1997) or even global (the 2008 financial crisis) economic crises.

The fear that global connections bring immense vulnerability has a long cultural history. It is telling that the contemporary cultural history of “containment scenarios” connects with visions of global mobility networks. Kaplan (1994), in an illustrative example of the modern containment imagery, *The Coming Anarchy*, reads signs of things to come in the state of Western and African critical infrastructure.<sup>12</sup> Kaplan’s world atlas is composed of “cities and suburbs in an environment that has been mastered”. This he contrasts with the state of airports in the Third World from where he sees a wave of “criminal anarchy” spreading. His widely read article is based on an eyewitness account: an aerial view of the ground beneath his flight. This seemingly permits him to grasp the politically significant contrasts and patterns between two terrains: one of eroding connections and the other of mastered networks. All these he makes relevant as part of an overall danger and fear of the imminent chaos spreading from the Third World to the First World through the main global transportation arteries. This fear of people on the move – namely suspicion of people fleeing chronic African degradation – seems to stem from what an international aviopolis symbolizes: the hub and spoke of global air travel is a symbol of almost limitless access between distant locations (Weiss 2001, 124).

While this is of course debatable on very practical grounds – after all it is typically relatively expensive to be able to gain access to the international airspace in the first place – Kaplan does seem to suggest otherwise, and that the antidote to this is *the selective containment of particular peoples to their territory*. Kaplan’s not so implicit recommendation seems to be to cordon people off, keeping them sedentary and separate, and managing them from afar (Dalby 1996, 472). In the post-9/11 era, such threatening images of global interconnection are gaining in importance. There is a growing sense that global flows need to be protected by containing the perceived bad elements and influences. These protective acts increasingly take

12 On Kaplan’s influence, it has been noted that: “Even before the 11 September attacks, Kaplan’s arguments were so enticing that the Clinton White House faxed a copy to every us embassy around the world” (Dunn 2004, 484).

place not at the well-known land borders, but at the key interfaces of global flows and local nodes/entry points, for example at airports, harbours, computer server farms, connection points of computer networks, and so on.

In fact, the post-9/11 practices of border and flow security have gradually transformed towards an increasingly flexible and continuous approach that aims to facilitate supposedly good and profitable mobility, while at the same time managing the associated “risks” and “challenges” of increased global mobility (e.g. terrorism, illegal immigration, organized crime) at various places and over an extended time period. For example, in the EU this is captured in the idea of “Integrated Border Management” (Hobbing 2005; Carrera 2007), whereas in the UK the idea is known as the “three lines of defence” (Vaughan-Williams 2010).

These models break free from the traditional notions of a border as the geographical limit of a political entity, and border security as an access control activity performed at the geographical limit at the time of entry, such as border guards checking travel documents. Instead, they put forth an access control model comprised of multiple spatio-temporal layers that chimes well with the nomadic and mobile world of flows: the first of which is already located overseas so that the movement of “unwanted” or “risky” subjects can be detected and prevented, in co-operation with local authorities, even before it reaches the traditional border; the second of which operates at the main entry points (e.g. airports, ports) through old and new technology, most notably advanced biometry in identity management, at the time of the entry; and the third of which operates within national borders through various techniques of surveillance in in-country stay management, for example to prevent identity change or to gather behavioural intelligence on “suspicious” people during their stay.

Irrespective of the doomsday scenarios and related security practices, the *emerging flow system does suffer from fragility*. On the one hand, there is what could be called the *complexity problem*, namely the very increase in complexity in the global flow system may also increase its vulnerability as potential sources of disruption grow. The supply chain of a certain German jeans brand in Figure 9 illustrates this well.<sup>13</sup> In all its complexity, the chain goes through eight countries on three different continents. To produce a pair of jeans for a German consumer, the supply chain includes the following phases: (1) the

13 For a similar discussion of value chains from a Finnish perspective, see Ali-Yrkkö (2013).

cotton is produced in Kazakhstan, (2) the yarn is acquired from Turkey and (3a) the dye from Poland, (3b) the textile fabric comes from Taiwan, (4) the fabric is dyed in Tunisia, and (5) the cutting is done in Bulgaria, (6) the jeans are sewn in China, (7) finalized in France, and finally (8) they are sold to a customer in Germany (LVM 2010, 38).

Unlike in a situation where a given product might be designed, manufactured and sold in a given region, for instance in North America or Europe, the length and complexity of the (jeans) supply chain across continents and national borders increases potential sources of vulnerability. Nodes in various parts of the chain may suffer from disruptions, for example in the form of natural disasters, economic crises, or political upheavals, just as seams that connect the nodes in the chain may become disrupted.

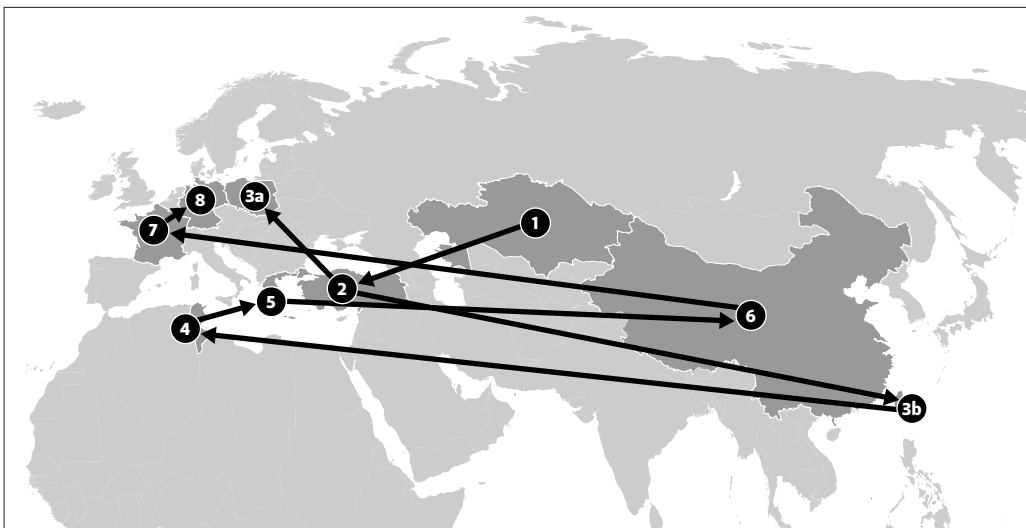
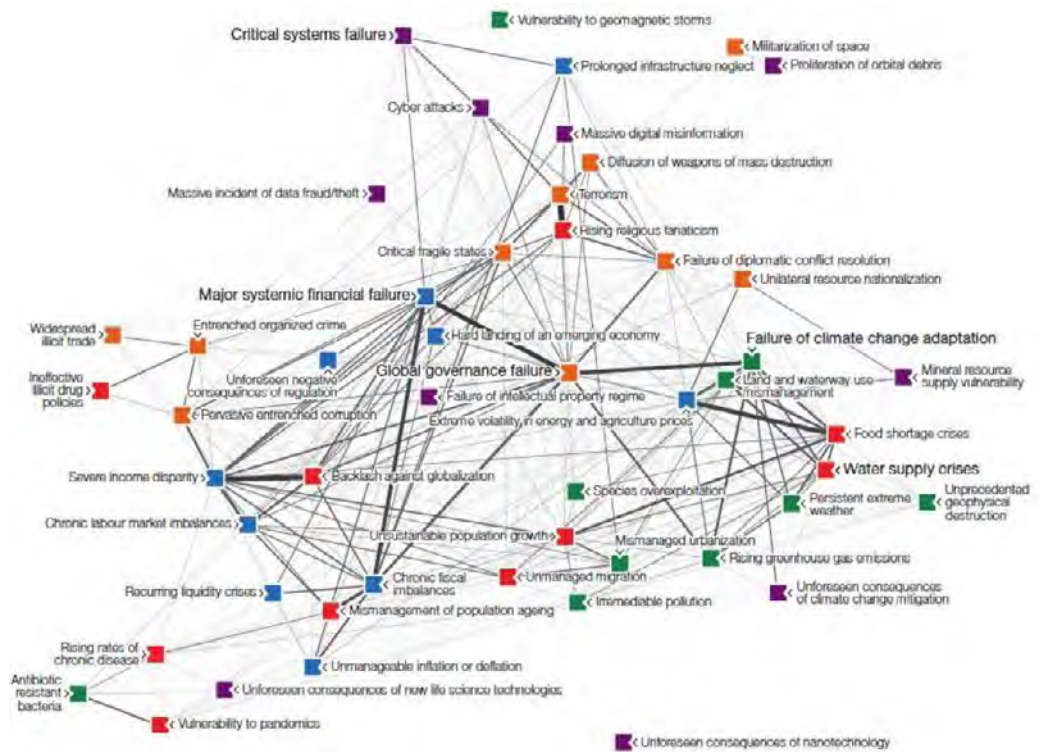


Figure 9:  
The supply chain  
of a German jeans  
brand (Source:  
LVM 2010)

In fact, these observations highlight that in addition to the increased complexity in the supply chain itself, the context in which any given chain emerges and operates is also far from simple. Figure 10 below provides an illustration of the complexities of the global operating environment in which supply chains exist and operate. Whether one agrees with the chains of causation it suggests, it does point out a vast range of potential sources of threats which – especially if nested together as drivers of “poly-crises” – may create an adverse socio-political environment not conducive to stable global flows in complex supply chains.



On the other hand, there is what could be called the *compartmentalization problem*, in that global supply chains may also come to have bottlenecks due to the increased importance and vulnerability of a certain part of the chain. Some global value chains rely on a single or limited number of companies for the production of some materials and parts. This was demonstrated in 1999 when an earthquake hit Taiwan (NY Times 1999). At the time, Taiwan was the fourth largest producer of semiconductors – a key component in memory chips, motherboards and hard drives of computers and other electronic gadgets. While major semiconductor producers in Taiwan managed to survive the tremor without significant structural damage – primarily due to appropriate construction and the beneficial location of factories in Northern Taiwan, away from the epicentre of the quake – they did face severe production challenges due to lack of energy caused by damage to the Northern Taiwanese energy grid (Papadakis and Ziemba 2001, 263). As a consequence, the prices of computer parts were inflated in global markets and almost all computer manufacturers started to report declining production figures.

Figure 10: Illustration of the complexities of the global operating environment (Source: World Economic Forum 2013)

Another, more recent example occurred in Thailand. In autumn 2011, Thailand suffered its worst floods in decades, which not only killed hundreds of people and affected millions of others, but also hit various sectors of the Thai manufacturing industry hard. Due to the interconnected and fragile nature of value chains, the effects of the flood were felt around the globe. The adversities of the automotive industry, in particular, captured international attention as the floods hit the regional manufacturing hub of major Asian car manufacturers, such as Toyota, Nissan and Honda. Toyota, for example, was forced to halt its production at three plants in Thailand, and this disruption in turn affected production at Toyota's other facilities around the world, including suspending work at all North American assembly plants. Similarly, in the technology industry, leading companies such as Apple, Hewlett-Packard, Intel and Seagate reported that the floods in Thailand restricted the availability of components, thus disrupting their respective supplies worldwide and ultimately having an adverse impact on their earnings (CNN Money 2011; CNN Fortune 2011).

These examples illustrate the ways in which the supply and value chains of computer or car manufacturers were not resilient since the production of essential parts was compartmentalized to a few key companies and/or a limited site. The global economy can create these bottlenecks through concentrating too much on a single location as opposed to diffusing production to multiple sites.<sup>14</sup> Resilience has economic costs, and risk reduction is not necessarily in the best short-term interests of economic actors.

The economic reasons for the concentration of production can offer benefits for the low risk sites that Finland can offer. Because a geographically diffused solution might not be economically viable, one might consider the cost and benefits of different single locations or state solutions. From the previous example, it is clear that a value

14 It is worth pointing out that while it suffered damage, the global electronics industry as a whole was able to survive the Taiwanese earthquake and its consequences due to diversification of production and acquisition. For example, Taiwanese production of memory chips amounted to only 15 per cent of global production, with other key producers, such as South Korea with its 35 per cent share, making up the rest. Conversely, most large electronics companies acquired their components from various locations. NEC, for example, bought its parts from China and the Philippines in addition to Taiwan. However, what is worth reiterating here is the fact that problems in production in one key site did and in general are likely to cause hiccups in fragile global supply/value chains as it always takes precious time to determine the extent of the damage to production in the affected location and to shift the acquisition of chips to elsewhere if needed (NY Times 1999).



chain can collapse if a key production facility is in an area of high risk. Natural catastrophes, political instabilities, labour-market unrest, and other types of shock events have an uneven distribution on the global map. In most of the risk maps, Finland is a low risk state. And in most cases, limited “shocks”, such as labour strikes, can even result in increased “stability” in the flow infrastructure if specific friction factors can be resolved in a mutually beneficial way through a working conflict resolution model, such as between labour, capital and state. This is a clear benefit in attracting nodal and access points to the global flows. As a location, Finland lessens the risks and heightens resilience. The attraction for nodal points can be premised on the message that Finland can lessen the exposure to major shocks, and thereby increase their resiliency.



3



## 3. The global commons as spaces of flows

### 3.1

#### INTRODUCTION

Global flows typically originate and end up in the territory of sovereign states. However, they are physically enabled by, and take place in, areas that are generally understood as being beyond traditional sovereign space and jurisdiction, and consequently also open and available for use by anyone. These relatively new aspects of social reality are often referred to as *global commons*. They include four commons domains: the high seas, international airspace, space and, most recently, the human-made cyberspace.

These spaces of global flows, even if outside sovereign territory and the direct formal responsibility and jurisdiction of sovereign entities, are of crucial interest for the contemporary world order with its heightened states of global connectivity and circulations. Intensive global flows of finance, trade, commerce and even military power all rely on assured access to, and free use of, the commons domains. Global commons provide substance to global interdependencies, making possible the existence of production capacity away from the primary global markets. Global interdependencies often have an inter-domain character. For instance, the intensification of sea traffic would not have been possible and safe without interaction across various domains, made possible by certain technological breakthroughs in the space domain – for example, the global positioning system – and in cyberspace – for example, the online logistics computer systems. The flow of people and goods across the global air space further enables the age of global flows.

The growing importance of the global commons leads to demands for flow security. The flow of critical resources has to be stable in diversified global value, production and logistics chains. Flow and its security are becoming increasingly vital for producers and users of resources. They are needed to maintain prosperity and economic life. Security policy and security of supply considerations are closely related to the innovation of new concepts and practices, such as the global commons.

This chapter argues that the growing emphasis on the notion of global commons signifies various co-existing elements of contemporary geostrategy, including the justification of the use of public power beyond the traditional sovereign realms, and the securing of assured access to commons domains for specific forms and agents of power. For example, in the conceptual toolkit of US national security, the notion of global commons is often used to frame and support the logistics flows – flows of goods, raw materials and military hardware – that take place across the regions of the high seas, international airspace, space and cyberspace, and maintain US economic prosperity and military power (Aaltola et al. 2014).

However, while the security of global flows relies heavily on states, and especially powerful state actors, most notably the US, they are increasingly accompanied by a plethora of private, non-governmental actors. For example, private multinational corporations practically own cyberspace. The ownership of its content is in the hands of individual and private actors. That said, cyberspace, like many other global commons domains, overlaps with the domain of state sovereignty. State security requires the use of these domains. This highlights a strong need to either co-opt or regulate them, with implications for the geostrategic thought of many nations. The co-optation of cyberspace, in particular, has become increasingly evident after the recent revelations of US signal intelligence activities by Edward Snowden.

### 3.2

#### A BRIEF HISTORY OF THE GLOBAL COMMONS

The global commons are based on the idea of open-access and free-to-use spaces, that is, of the “commons”. This idea of the commons has a long history, and can be traced back to old English law in which the commons referred to tracts of land shared by villagers – for example, the village square or common grazing land – without which the village

as an assemblage of people could not have come together (Aaltola et al. 2011, 9). The notion also has a historical predecessor in Roman law, which categorized property into four specific types of “property regimes” (Buck 1998, 4) with specific rights of ownership: objects of *res publica* belonged to the government for the use and benefit of the public (e.g. rivers, territorial waters, highways); objects of *res nullius* were not owned by anyone, either because they had been discarded (e.g. stray cats) or because no one had tried to claim them yet (e.g. whales); objects of *res privatae* were those discarded or previously unclaimed objects that someone had taken into their possession; fourthly, and importantly with regard to the idea of the “commons”, objects of *res communes* were things that were accessible to anyone, but which could never be acquired or owned in totality by any individual user or government (e.g. light, air).

While drawing on this tradition, the idea of “global commons” is relatively new. The term typically has an environmental connotation that originated in the environmental debates of the 1960s and 1970s, most notably in the famous intervention by Garret Hardin in the journal *Science* in 1968. The idea later became internationally acclaimed through the influential Bruntland Commission Report, *Our Common Future*, in 1987. Ever since then, the term has been related primarily to international efforts to protect and manage extra-sovereign resource pools – such as Antarctica, the oceans, the atmosphere and outer space – from the negative impacts of over-use in the absence of a centralized government or property rights (Buck 1998; Vogler 2012, 61).<sup>15</sup>

Today, the term has undergone a minor renaissance and been appropriated above and beyond the earlier focus on environmental protection. In fact, the term “global commons” has been incorporated into the lexicon of contemporary global strategic thinking. This resonates with the writings of the famous American naval strategist, Alfred Thayer Mahan, who wrote of the high seas in his *The Influence of Sea Power Upon History 1660-1783* as a “wide common, over

15 See also World Commission on Environment and Development (1987, Ch. 10); the so-called “Bruntland Commission Report”. In the environmentalist frame, Garrett Hardin’s seminal discussion of “The Tragedy of the Commons” in his 1968 article has been particularly influential. The core of Hardin’s argument was the idea that there are certain natural resources that are publicly available but limited in supply, and that short-term benefit maximization by individual users easily leads to an inevitable and collective harm in the form of resource depletion. As Elinor Ostrom (1990, 2) has observed, “[s]ince Garrett Hardin’s challenging article in *Science* (1968), the expression ‘the tragedy of the commons’ has come to symbolize the degradation of the environment to be expected whenever many individuals use a scarce resource in common”.

which men may pass in all directions” (quoted in Murphy 2010, 31). This definition of the high seas as a “wide common” went beyond any natural, environmental or legal meaning of the notion, and in fact had an explicit strategic connotation as a part of Mahan’s theoretization of warfare and the rise of the British Empire. As Tara Murphy (2010, 31) has recently pointed out, Mahan drew attention to the “economic benefits gained from such a passageway through the creation of trade routes and the consequent power projection capabilities a state could reap by dominating seaborne commerce”. The Mahanian concept chimed well with the American self-identity as a state in constant movement towards different frontiers. It is important to point out that the maritime imagery of power on the move was later used in connection with air power. It can also be seen as the metaphorical foundation of other global commons, namely space and cyberspace.

Joseph Nye (2002, 143–4) has elaborated on the Mahanian perspective. According to him, it was 19th-century Great Britain in particular, as the global hegemon of the day, which produced and attended to three key global public goods: the maintenance of the balance of power in Europe, the promotion of an open international economic order, and lastly, the maintenance of open international maritime commons through the suppression of piracy. Importantly, from a contemporary perspective, Nye observed that all three “translate relatively well to the current American situation” as a hegemonic global power. In 2011, Secretary of State Hilary Clinton captured two of these tenets – the importance of an open global economy and the free global maritime commons – when she argued that the US cannot afford isolationism but indeed must remain deeply engaged internationally: “[f]rom opening new markets for American businesses to curbing nuclear proliferation to keeping the sea lanes free for commerce and navigation, our work abroad holds the key to our prosperity and security at home” (Clinton 2011).

Today, it can be argued that the key idea behind emphasizing and co-opting the notion of the global commons is to *justify* the effective and agile uses of power beyond the traditional sovereign realms, while at the same time *ensuring* that the global commons remain free, accessible and secure to such forms of power. It may be further argued that these extra-territorial and non-sovereign spaces are becoming increasingly *important* as a result of the expansion of the global flows of finance, trade, commerce and even military power, which all rely on free access to and use of the global commons. The recent Snowden revelations have highlighted this influential US doctrine, which



aims at “securing” the access points to the global commons, and especially the global cyber commons. In practice, such an approach highlights the ongoing great game over control of the global commons. This power politics context puts small states, such as Finland, in a position of choosing their own strategic approach. Small states often lack the means of securing the access points themselves. They have to participate in international coalitions or, alternatively, they can act as a catalyst for the creation of a global order governing access to the so-called global commons.

Lastly, it is also possible to argue that the global commons is an inherently *flexible political concept* – a social construction – which entails that the very commons domains themselves are not fixed in nature, scope or quantity, but are mouldable and/or expandable instead. In effect, this means that there are other potential “commons” that could be considered a part of the global commons in the future. These could include rare minerals and other vital strategic resources, or even areas that contain these. In fact, this kind of discursive move has already taken place, with an attempt being made to define rainforests as a “global commons” because of their critical role as global carbon dioxide sinks and containers of biodiversity, although the move was effectively blocked as a “neocolonial tactic on the part of the developed nations to preserve open access to bio-diverse resources which could be patented by Northern corporations” (Vogler 2012, 63).

### 3.3

#### THE GROWING IMPORTANCE OF THE GLOBAL COMMONS

In this report, global commons refers to spaces or domains that fall outside the territory and direct jurisdiction of sovereign states and can consequently be used by anyone. Traditionally, such areas include the high seas, international air space, space and, most recently the human-made cyberspace (Aaltola et al. 2011, 9; see also Buck 1998). These domains, even if outside the direct responsibility and governance of sovereign entities, are of crucial interest for the contemporary world order. In fact, so great is their importance that they are said to be “the connective tissue around our globe upon which all nations’ security and prosperity depend” (NSS 2010, 49). This suggests a more dynamic and mobility-centric view in which the global commons, as spaces of flows, constitute the critical flow arteries that enable the heightened states of global connectivity and circulations of the liberal world order.

Today, in a world that is perceived to be increasingly interconnected and interdependent, the freedom and security of these spaces of flows is of crucial interest for the US as the *de facto* leader and benefactor of the liberal world order (Murphy 2010).

In fact, the significance and security of the global commons has gradually emerged as an important topic in recent strategic documentation and planning by the US and US-affiliated international organizations, such as the North Atlantic Treaty Organization (NATO). The initiative to re-define the extra-territorial and non-sovereign spaces (and related practices) in strategic discourse gives the US and its allies and partners – perhaps paradoxically – *sovereign power over non-sovereign spaces*.

The US has led the discursive move to emphasize and securitize the global commons in its national and military security texts. The 2010 *US National Security Strategy (NSS)* defined the protection of the global commons as one of the “key global challenges”<sup>16</sup> that require the attention of both the US and the international community as a whole. In a similar vein, the 2010 *US Quadrennial Defense Review (QDR)*, the 2011 *US National Military Strategy (NMS)* and, most recently, the 2012 defense strategic guidance, *Sustaining US Global Leadership (SUSGL)*, have all highlighted the growing importance of the global commons. The *SUSGL* has re-articulated the growing importance of the global commons framework in the global role of the US. The document recognizes that both global security and prosperity are increasingly dependent on the free flow of goods in the air or sea domains. Because of this political, strategic and economic imperative, the US “will seek to protect freedom of access through the global commons” and “will continue to lead global efforts [...] to assure access to and use of the global commons, both by strengthening international norms of responsible behavior and by maintaining relevant and interoperable military capabilities” (*SUSGL* 2012, 3).

The latest member of the global commons – cyberspace – has, in particular, drawn increasing attention in the US in recent years for a number of reasons. As the 2010 *NSS* stated, “[c]ybersecurity threats represent one of the most serious national security, public safety, and economic challenges we face as a nation” (*NSS* 2010, 27). The increased importance of cyberspace was made apparent with the release of

16 Other challenges that the 2010 *NSS* identifies include violent extremism, nuclear proliferation, the promotion of global prosperity, climate change, peacekeeping, pandemics and diseases, and transnational criminal threats.

the first ever US Department of Defense's *Strategy for Operating in Cyberspace* (SOC) in July 2011, in which cyberspace was deemed a "defining feature of modern life" (SOC 2011, 1) and, as such, a critical infrastructure for civilian, commercial and military interests alike. It is also obvious that US hard and soft power is increasingly dependent on activity in the cyber domain. The recent revelations concerning the sophistication of the US signals intelligence capability – or, more broadly, cyberpower (Nye 2010) – are a case in point that highlights not only the importance of the cyber domain, but also the significance of security and security activities within it.

While the US has led the efforts to emphasize the strategic importance of the global commons, the focus on – and strategic redefinition of – the commons domains has not remained exclusively within the purview of the US. Increasingly, international organizations and entities affiliated with the US and the US-led world order have also started to pay attention to the global commons. The most notable of these is NATO. The NATO 2011 report, *Assured Access to the Global Commons* (AAGC), has claimed that "the security and prosperity of our nations, individually and for the Alliance as a whole, rely on assured access to and use of the maritime, air, space, and cyberspace domains" (AAGC 2011, xvi). In fact, according to the report, the concept of the global commons provides a "useful lens" through which it is possible to view the world "as a complex, globalized whole that depends for its security and prosperity on access to all four domains" (AAGC 2011, xvi).

Another international instance where the global commons have been identified as important – both strategically and operationally – has been the US-sponsored military process known as the Multinational Experimentation (MNE), and especially its seventh iteration, MNE7, in 2010–2012.<sup>17</sup> The MNE process, in general, can be understood as US military-sponsored, international research and development efforts that aim to provide innovative and future-oriented solutions to a collaboratively designated crisis management challenge. The overarching aim of MNE has been to facilitate the transformation of crisis management capabilities, and by doing so, the evolution of the broader crisis management system (Vuorisalo 2012). MNE7, in particular, was a "two-year multinational and interagency concept development and experimentation (CD&E) effort to improve coalition

17 MNE 7 was the last iteration of the process under the original name. Today, the process is known as the Multinational Capability Development Campaign (MCDc). For a brief history of the MNE, see Vuorisalo (2012, 237–43).

capabilities to ensure access to, and freedom of action within, the Global Commons domains” (AGCMDBAR 2011, 2).

With regard to the specific interests of this report, the MNE7 section on the maritime commons provides an illustrative case in point. It worked under the baseline assumption that the high seas connect “widely dispersed markets and manufacturers around the globe” (AGCMDBAR 2011, 6–7) and, as such, these global waterways are “essential to a healthy international economic system” and “vital to most nations’ security interests” (AGCMDBAR 2011, 6–7). Crucially, the maritime domain of the global commons is also a domain that is seen to be in a process of becoming increasingly contested and, in fact, is said to be experiencing a “maritime security deficit” (AGCMDBAR 2011, 3) due to a lack of functional maritime security regimes, international disputes related to conflicting legal interpretations and behaviour at sea (e.g. China in the South China Sea), and increased anti-access or area-denial (A2/AD) threats, including maritime piracy around the Horn of Africa.

### 3.4

#### THE REDEFINITION OF THE GLOBAL COMMONS: IMPORTANCE, VULNERABILITY AND THREATS

Given this growing strategic focus on the global commons, how exactly do the US and US-affiliated actors argue for the shift towards the global commons as a strategic frame in the contemporary age of global flows? What are the discursive parameters and formulations through which the global commons are incorporated as a part of the strategic lexicon of Western foreign and security policy actors? Through a close reading of key strategic documentation, this chapter suggests three key parts in this argument to strategize and secure the global commons: the establishment of existential importance, vulnerability and sources of threat.

First, *the global commons are redefined as existentially important*. The importance of the global commons to the US-led world order is connected to the critical flow activities – especially economic activities – that take place within various domains, and between them. As pointed out, the global commons are seen to constitute the arteries of today’s interconnected world through which commerce, capital, information, people, as well as military forces, flow (still relatively) freely. For example, in terms of *commerce*, a rough 90 per

cent of global trade is said to travel by maritime routes in the sea domain, amounting to \$14 trillion in value in 2008 alone. This easily leads to the conclusion that “free trade and free access to the Maritime Global Commons Domain are key features of the present world order” (AGCMDBAR 2011, 6–7, 36). The assured access to, and free use of, key maritime corridors is especially important in certain strategic parts of the world, including existing critical sea lanes and potential choke points, such as the Gulf of Aden, the Strait of Hormuz and the Strait of Malacca, through which a large proportion of trade goods, especially oil, are transported for the global markets.<sup>18</sup> In the future, the opening Arctic maritime route, and its potential choke point in the Bering Strait, might become a part of the equation. The same logic applies to the air domain: free and assured access to this domain is seen as crucial for global commerce since an estimated 6 million tonnes of international freight and as many as 2.75 billion passengers travelled by air in 2011. Without fast intercontinental flight services, global commercial and business interests would not be properly served.<sup>19</sup>

The global *finance* sector is also underlined as being highly dependent on the global commons, especially the cyber domain. The near-instantaneous transactions of the financial markets rely on the free and safe flow of digitized information and capital in cyberspace. The safety of the sector’s constitutive systemic components is also divided between the other commons domains, including the sea (cables) and space (satellite technology), as well as the crucial land domain, which remains under the jurisdiction of sovereign states (the server infrastructure) (see NMS 2011, 7, 9). Likewise, it is argued that individuals, civilian organizations and corporations of all kinds rely on the free, secure and fast flow of *information* – text, imagery, video, and

18 For example, the critical sea lanes in the area between the Suez Canal and the Horn of Africa are important for the harmonious activities of global maritime trade. The area between the Gulf of Aden and the Suez Canal, in particular, constitutes a critical gateway through which more than 20,000 ships and close to 30 per cent of Europe’s oil and gas pass each year. Similarly, the area has great significance for the global oil supply and maritime trade. See, for example, Anyu and Moki (2009, 103), Kraska and Wilson (2008, 41).

19 As Giovanni Bisignani, the Director General and Chief Executive Officer of the International Air Transport Association (IATA), claims: “[t]he numbers clearly show that the world wants to fly. And it also needs to fly. Air transport is critical to the fabric of the global economy, playing a critical role in wealth generation and poverty reduction. The livelihoods of 32 million people are tied to aviation, accounting for US\$3.5 trillion in economic activity [...] A looming infrastructure crisis could put these benefits at risk. And failure to prepare adequately to meet demand will have an environmental cost with inefficient use of airspace and delays” (IATA 2007).

so on – in the cyber domain. Thus, the security of both flows is seen as vital for the existing liberal global order.

What is of note is the claim that it is also the so-called “security producers” – the *military* – that rely on assured access to, and free use of, the global commons. For example, the US Department of Defense (DoD) is said to be unable to function without access to cyberspace. It operates “over 15,000 networks and seven million computing devices across hundreds of installations in dozens of countries around the globe” (SOC 2011, 1). Furthermore, the DoD “uses the cyberspace to enable its military, intelligence, and business operations, including the movement of personnel and material and the command and control of the full spectrum of military operations” (SOC 2011, 1). What is even more crucial – albeit less so here – is the claim that the military relies not on a single, but multiple commons domains in (almost) any given operation. From the perspective of maritime activities, contemporary navies are said to be “dependent on digital communication and satellite reconnaissance and navigation for deployed operations, maritime related flight data, and missile guidance” (AAGC 2011, 6).

For example, Operation Active Endeavour, the NATO anti-terrorist naval mission in the Mediterranean Sea, has relied on its strong maritime situational awareness for much of its operation capability, which utilizes “an array of surveillance and intercept assets on land and sea, and in space and cyberspace” (AAGC 2011, 6). The same applies to the recent EU – and US-supported – anti-piracy operation, EUNAVOR Somalia: Operation ATALANTA,<sup>20</sup> in the waters around the Horn of Africa. As an integral part of the operation, the maintenance of the Maritime Security Centre–Horn of Africa (MSCHOA),<sup>21</sup> which supports the provision of an international transport corridor for commercial ships through the Gulf of Aden, relies on and utilizes free access to the various domains to provide a scheduled and systematic escort service for ships passing through the Gulf of Aden. This includes, for example, assured and free access to the air domain to make radio communication possible between and among commercial and military ships at sea; to the space domain for satellite surveillance, the targeting of ships and communication purposes; and to cyberspace for an Internet-based service for commercial ships.

20 See, for example, Council of the European Union (2008) and the description in the EEAS (2011).

21 For more information on the Maritime Security Centre–Horn of Africa, see MSCHOA (2014).

Some regions still pose a significant challenge to reliable inter-domain capabilities. For example, operating in the opening Arctic maritime domain, while perceived as increasingly important in the future, is likely to remain difficult given the complex challenges in and between the space and air domains, as well as on land. This applies even to the most advanced military actors, such as the US. As the US Department of Defence 2011 Report to Congress on Arctic Operations and the Northwest Passage (RCAONP) points out, “communications are extremely limited in latitudes above 70°N due to magnetic and solar phenomena that degrade High-Frequency (HF) signals, limited surface-based relays outside of Alaska, and geostrategic satellite geometry” (RCAONP 2011, 16). This means that while the communications infrastructure might just be adequate for single ships, it is “insufficient to support operational practices of a surface action group or any large-scale Joint Force operations” (ibid., 16).

Second, *the very existence of the global commons is redefined as being exposed to harm, danger and disruption*. This entails that the strategic focus on the global commons is also made apparent by the potential *vulnerabilities* that the importance of, and reliance on, the global commons is said to produce. As the 2011 MNE7 AGCMBR clearly argues, the current liberal world order is based on free trade and free access to the global commons, as on the high seas and in the critical sea lanes in the maritime domain or on the Internet in cyberspace (AGCMBR 2011, 36–7). This suggests that it is from this ever-flowing economic order that the political and military might of not just the US, but also of other (liberal) powers, is drawn. Given that both the commerce and finance sectors utilize the free and assured access to the global commons, it naturally follows from this that the commons come to be seen as the very vulnerability of the current US-led liberal world order. This is the so-called “*irony of the commons*”, in that while the various commons domains play a powerful role in enhancing economic prosperity, the exchange of information, the flow of goods and services, and even the efficient projection of military power in a globalized world, they are, at the same time, the very basis of the increased insecurity today (Jasper and Giarra 2010, 6–7, emphasis added).

For example, the critical sea lanes in the southern maritime corridor – from the Suez Canal all the way to the Strait of Hormuz, the Indian Ocean and ultimately the Strait of Malacca – are central to the trade and energy flows, but in recent years they have also been plagued by the continued and persistent phenomenon of maritime piracy, which has incurred increased costs for the shipping industry (in the form

of increased insurance premiums and costs from diverted transport routes),<sup>22</sup> and contributes more broadly to the growing uncertainty in a time of economic and financial instability. Similarly, various cyber activities in recent years have exposed the vulnerability of commercial, public and even military institutions: credit card and personal information have been stolen (e.g. the hacking of the Sony Playstation network in 2011), massive denial-of-service attacks have been launched against private firms (such as those against Visa, PayPal and Mastercard in 2010 in the context of the Wikileaks incident) and states (such as the one against Estonia in 2008), malware developed and deployed (the malware in the *New York Times* online version in 2009) and, of course, even confidential diplomatic (Wikileaks) and national security (the “Snowden case”) documentation has been leaked to public scrutiny (see e.g. BBC 2007, 2010; NY Times 2007; Wired 2009, 2011). Seen in this light, the cyber domain is not only an important asset that is deemed to facilitate the efficient and free flows of the current economic and political world order, but also a source of potential and actual vulnerability for it (see Jasper 2011, 53).

Closely related to this, the third discursive move then *introduces the sources of challenge, danger and disruption to the global flows in the global commons*. This means that the increased strategic focus on the global commons is understood in relation to the *threats* that are seen to emerge in the context of the commons domains. There are two relatively new and most likely continuing trends that are highlighted as possibly threatening, disrupting or even preventing free and assured access to the global commons, thereby challenging the existing US-led liberal world order.

Firstly, there are the threats that emanate from *state actors*. As the 2010 NSS, the 2011 NMS, the 2011 AGCMDBR and the 2012 SUSGL all argue, the (relative) post-Cold War stability and free global trade have contributed to the birth of new *emerging powers*, including but not limited to Brazil, China and India. In fact, the rise of these new powers is said to have transformed the geopolitical landscape into a “multi-nodal” or “multipolar” world with new centres of power and influence. This entails the potential risk – and fear – that Great Power rivalry and competition will increase and (US-supported) multilateral

22 See, for example, Anderson (2010, 332): “piracy costs the shipping industry between thirteen to fifteen billion dollars”. He adds, “insurance premiums have spiked, rising from approximately \$900 at the beginning of 2008 to \$12,000 by November 2008, with another sixty percent increase estimated between November and December”.



institutions and norms may be eroded and weakened. This may have severe consequences for the normative regulation and governance of the global commons – a task that the US has taken upon itself ever since the end of World War II. At the very least, instead of global systems of governance, more regional governance regimes may emerge. This competition is also seen to be exacerbated by the struggle for raw materials that are in great demand, but finite. Moreover, the newly gained prosperity of the emerging powers has made it possible for them to modernize their militaries and to consider more assertive policies – including the establishment of the above-mentioned regional regimes – that could challenge the current US-led world order and its underlying premise of assured and free access to the global commons (NSS 2010, 3, 8; NMS 2011, 2–3; AGCMD BAR 2011, 37–40; SUSGL 2012, 2).<sup>23</sup>

Sympathetic expert opinions support this interpretation. As one important observation points out, the rising powers “will not simply be content to simply acquiesce to America’s role as uncontested guarantor of the global commons. Countries such as China, India, and Russia will demand a role in maintaining the international system in ways commensurate with their perceived power and national interests” (Flournoy and Brimpey 2009; see also Mohan 2010, 133–4). Others go further and see potential dangers in the rise of the new powers, and suggest that the threat from the emerging state actors could take many forms. For example, it is suggested that some of these emerging states could aspire to disrupt or deny strategic deployment or manoeuvres in key regions around the world and, in so doing, challenge access to strategic resources. The potential threat from Iran in the Strait of Hormuz is a case in point here, given that a significant proportion of the global oil supply travels through this region. Iran, of course, also has extended strategic importance to the US with regard to the nuclear weapons *problematique* (Jasper and Giarra 2010; 6–7).<sup>24</sup> Similarly, there have been concerns about the governance of the Eurasian Arctic, especially with regard to the Russian regulation of the opening maritime routes and the extension of the Russian Exclusive Economic Zone.

Similarly, China is often depicted as a source of potential danger. China’s military build-up in the maritime, space and cyberspace domains is a growing concern, both in terms of regional stability and

23 See also Denmark (2010, 167).

24 For a strategic-level statement concerning the Iranian nuclear problem, see for example SUSGL (2012, 2).

freedom of access and movement in the various domains. For example, there are concerns that China's increasingly assertive policies in the maritime domain, especially in the Asia-Pacific, backed by its growing naval capabilities, might set a precedent through which the current legal order of the sea, ratified in the 1982 United Nations Convention on the Law of the Seas (UNCLOS), might be jeopardized and freedom of navigation in the maritime domain questioned.<sup>25</sup> It is also unclear whether China's increased will and capability will result in new regional arrangements in the maritime domain in the Asia-Pacific. Furthermore, the role of China in the opening Arctic remains undefined and thus a source of anxiety. For example, will China seek to project military or civilian force to support its commercial fleet if they start sailing in large numbers in Arctic waters? Sometimes it is also suggested that unfriendly states, including Russia, China or Iran, could use cyberspace to mount disruptive attacks on critical, yet vulnerable, infrastructure, such as computer networks, as well as, for example, energy grids or systems of transportation that are built on complex computer networks. Such attacks could produce disruptive or even destructive effects that travel and reverberate from one domain to the next (Jasper and Giarra 2010, 6-7; Flournoy and Brimpey 2009).<sup>26</sup>

The second threat is seen to emanate from non-state actors. According to the 2011 *NMS*, one result of globalization is the lowered threshold for state and increasingly also non-state actors, including terrorists, pirates, traffickers or even individual hackers, to acquire disruptive and advanced civilian or military technologies that could challenge the assured access to, and free use of, the global commons (*NMS* 2011, 3-4; *NSS* 2010, 17).<sup>27</sup> This is seen as dangerous since it may not only result in the increased possibility of Great Power rivalry, but also – and somewhat ironically – in the transformation of the very

25 Interestingly, the us itself has not ratified this treaty, even if its strategic documents suggest that China's disruptive behaviour might erode it. In the context of the UNCLOS, the threat to the freedom of navigation is especially pertinent in terms of the so-called Exclusive Economic Zones (EEZs) in the coastal waters of states. The exploitation of resources from the EEZs is the sole right of the coastal state, but freedom of navigation is generally assumed to be guaranteed for all vessels, including commercial and military ships. China has engaged in what is often called "lawfare" to contest the right to freedom of navigation and passage in its coastal seas by claiming that foreign vessels are obliged to ask for permission to enter these waters. This goes against the existing interpretation of the UNCLOS, in which coastal seas, especially the EEZs, are available to all vessels.

26 For official views on China in the maritime domain, see *AAGC* (2011, 19-21); for China more broadly, see *NMS* (2011, 14), *NSS* (2010, 43).

27 See also Denmark (2010, 167-8).

nature of power in international politics by deflating state power in favour of non-state sources. The very opportunity for non-state actors, including individuals, to acquire powerful but cheap technologies that may threaten the assumed monopoly on hard power by state actors has the potential to reduce international power hierarchies in the global commons, and thus also in international politics more broadly (Aaltola et al. 2011, 11–15).

Again, sympathetic expert opinions concur. For example, it is suggested that these non-traditional and asymmetric sources of power and threats may range from Iranian-supplied anti-ship cruise missiles at the hands of Hezbollah to the acquisition of low-cost computer software to mount service-denial attacks on computer servers, or to intercept live video feeds from US Predator drones. In future, technologies such as satellite jammers might disrupt the satellite-based communications that are vital, not only for the military (e.g. for command and control systems), but also for commercial and financial transactions around the world (Denmark 2010, 167–8).

However, it is worth pointing out briefly here that the potential existence of low-threshold technology does not, in fact, correlate directly with the utilization of such means by non-state actors. A good example comes from the maritime domain, and in particular the practice of piracy around the Horn of Africa. While the Somalia-based piracy around the Horn has adopted a certain amount of high technology (such as telecommunications technology, satellite phones and global positioning system (GPS) gadgets), it is not clear whether the pirate communities are willing and able to adopt more intrusive technologies that could exploit the existing vulnerabilities of commercial or even military actors in cyberspace or, for that matter, space. This might be explained by the relatively patterned practices and capabilities that such communities rely on for their specific purposes of hijacking foreign vessels. In fact, some experts continue to argue that piracy is still a “relatively low-tech affair” (Gilpin 2009, 7).<sup>28</sup> In most cases, the proponents of this view argue that the pirates use three to five small, swift skiffs to launch a swarm attack on the target vessels. Usually, these operations only take around fifteen minutes to complete. In operations on the high seas, these skiffs are released from medium-sized trawlers that are normally used for fishing purposes

28 On the basis of a similar kind of diagnosis of recent piracy operations, Kraska arrives at the opposite conclusion; according to him, Somali pirates “have become increasingly sophisticated in their methods and operations”, see Kraska (2009, 199).

(Gilpin 2009, 7). As such, the pirates prefer to rely on speed, agility, invisibility and numbers (for example, small digital footprint, fast and ordinary-looking boats, swarming tactics), instead of high technology or brute force in their attacks.

These considerations of importance, vulnerability and threats are integral, discursive moves in the attempt to break free from the powerful environmentalist frame and redefine the global commons as a focus of strategic interest by major global actors, most notably the US. However, it is almost impossible not to pay attention to the possibility that *recent long-term engagements* – the so-called “large-scale, prolonged stability operations” (SUSGL 2012, 6) – by the US-led coalitions of the willing in Iraq and Afghanistan may have influenced the shift towards the global commons, especially since they have had a deep impact on the way in which robust and comprehensive operations on land are viewed today. At the very least, there are economic, operational and political reasons involved. Not only have these engagements become extremely *costly* for the US and its coalition forces, with some estimates putting the price tag at as much as \$4-6 trillion over time,<sup>29</sup> but they have also turned out to be extremely *difficult* in terms of achieving the set objectives, whether operationally (pacifying the areas) or politically (promoting democracy, and the rule of law).

This has come to mean that the age of stability operations is over – at least for the time being – and that the age of the global commons and flow security is at hand. In fact, this interpretation finds support in the recent defense strategic guidance, the 2012 *SUSGL*, by the Obama administration, which explicitly states that in the aftermath of the wars in Iraq and Afghanistan, the US “will emphasize non-military means and military-to-military co-operation to address instability and reduce the demand for significant US force commitments to stability operations” (SUSGL 2012, 6). The bottom line seems altogether clear: “[t]he US will no longer be sized to conduct large-scale, prolonged stability operations” (SUSGL 2012, 6; emphasis removed).

29 According to *the Washington Post* (2013), “[t]he U.S. wars in Afghanistan and Iraq will cost taxpayers \$4 trillion to \$6 trillion, taking into account the medical care of wounded veterans and expensive repairs to a force depleted by more than a decade of fighting, according to a new study by a Harvard researcher”.

4



## 4. The transforming global maritime domain

### 4.1

#### INTRODUCTION

The global maritime domain is the key context in which many of the global flows take place. The outsourcing of production has come to mean that products flow from Asia to the main markets in the US and Europe. Asian areas, most notably China, are also dependent on the increased global production of raw materials and energy shipped from faraway places, such as Africa and the Middle East. This dual movement of products and resources has led to the significant intensification of sea traffic – that is, of global trade flows. Many of the vital maritime flows travel along a limited number of highly congested and easy to disrupt maritime routes, such as the Strait of Malacca or the Gulf of Aden. At the same time, new opening maritime routes and areas, such as the opening Arctic, are entering into the equation.

In fact, the contemporary global maritime environment is in the process of a broader transformation from a relatively stable domain guaranteed by the political and military might of the US towards a more complex, connected but also contested space of flows. This chapter analyzes a number of factors that continue to work towards this state of affairs. For example, the so-called “rise of the rest” has resulted in the global diffusion of maritime power. Emerging powers – especially China, but there are fears over Russia, too – are challenging the existing maritime legal order, and actively seeking to expand their own sovereign jurisdiction in international waters. Also, the maritime environment is an object of growing commercial interest, especially due to the urge to exploit maritime resources, such as deep-sea energy

reserves and minerals, as well as fishery. These and other factors are transforming the global maritime environment and may endanger assured access to, and free use of, the global maritime domain, thus affecting the working of the global flow system.

#### 4.2

#### THE FRAGMENTING MARITIME DOMAIN

For decades, assured access to the global commons, and especially to the global maritime commons, has represented a cornerstone of the liberal international order. It has been one of the key enablers of the most astonishing – albeit unequally distributed – growth in trade and information flows the world has experienced since the middle of the 19th century; it has driven the development of global supply chains that have now become the vectors of economic growth; and it has assisted the development of a multilateral problem-solving mechanism, by deepening international interdependence and creating a level playing field. Although largely taken for granted in today's highly interconnected world, the background conditions for these “straight-line governance practices” have always been tied to a certain international power constellation and global balance of interests.

Recent years, however, have witnessed several radical changes to the international maritime security environment that have been the result of a number of concurrent and reinforcing global trends. These geo-political, environmental, legal, technological and even physical changes are reshaping the nature of the maritime commons and driving its fragmentation. The resulting new maritime context is simultaneously more connected and more contested. In this new world, “every shock, every disaster” is now truly “felt in the antipodes”. More than ever, developments in faraway maritime regions reverberate with increasing speed around the world, while a resurgent nationalism and growing competition over resources tighten the noose on the international freedom of navigation. These growing vulnerabilities and increasing fragmentation challenge the openness of the maritime commons.

The diffusion of global maritime power due to the rise of alternative power centres around the globe is perhaps one of the key variables behind this fragmentation. Emboldened by their economic strength, a number of emerging and resurgent powers have initiated a series of ambitious fleet-building programmes. Many of these programmes are aimed at acquiring sea-based power projection capabilities. China,



Russia, India and Brazil are all in the process of developing their own carrier and amphibious warfare capabilities that will enable them to project power beyond their territorial waters. Inevitably, neighbouring countries have responded by strengthening their own naval forces, leading to a series of major naval build-ups; many of which are concentrated in the Asia-Pacific region, which has emerged as the epicentre of global flow dynamics. Without a clear ordering structure, this growing diffusion and fragmentation of power raises the risk of conflict amongst state-based actors.

Technological change, although seemingly innocuous, is driving and intensifying this process. The development and spread of cheap and easy to deploy anti-access and area-denial (A2/AD) capabilities has raised questions over the future viability of large surface fleets. This is blunting the conventional superiority of the US Navy and posing a potent localized threat to the freedom of navigation, in brown waters in particular (Holmes 2012; Cliff et al. 2007). Just as the use of armoured cavalry declined as the firepower and accuracy of muskets and rifles increased in the 18th century, so does the use of large surface fleets increasingly appear challenged by the spread of anti-symmetric and relatively low-tech capabilities. As ever, therefore, changes in the distribution of power and technology are reinforcing each other to slowly create new dynamics and a different level playing field; in this case favouring fragmentation and territorial control.

The “elegant decline” (Kaplan 2007) of Western naval power does not, in and of itself, necessarily pose a challenge to the global maritime security environment, of course. On the contrary, if employed to strengthen international regimes, it has the potential to reinforce the security and safety of international shipping. When maritime hegemony passed from the UK to the US at the beginning of the last century, the attendant ruptures were minimal. However, when coupled with intensifying geo-political competition in the Asia-Pacific and the Indian Ocean regions, these global shifts in maritime power harbour some potential for conflict and confrontation. Moreover, by simply raising the costs of any future maritime confrontation, the diffusion of maritime power away from the West strengthens the ability of new and rising powers to challenge the existing legal order over territorial claims and exclusive economic zones.

A gradual “re-territorialization” of the seas might be one potential consequence of these developments. Several rising powers have displayed a growing willingness to contest the existing limits of their territorial waters and to regulate access to their exclusive economic

zones (EEZs). China, for example, has made expansive claims in the South and East China Seas and has sought to reinterpret international law in order to deny access by foreign military vessels to its EEZs. Russia has laid claim to the control of Arctic Sea Routes outside its own sovereign territory and displays a willingness to enforce its sovereign claim in the region – as recent incidents involving Greenpeace have shown. Turkey has threatened to use naval power to support the implausible claims of Northern Cyprus to its own EEZ, and to threaten gas explorations in the internationally-recognized Cypriot EEZ. Brazil has rejected NATO interference in the South Atlantic, which it regards as its own strategic backyard. Due to the nature of international law, these claims may well beget changes in customary and regional law, allowing for a greater regulation of navigation through EEZs and a de facto re-territorialization of some maritime spaces (van Dyke 2005).

Some very recent examples of this dynamic include China's imposition of an air defence identification zone over the Senkaku Islands and its adoption of a "cabbage strategy" to solidify its claim over reefs and sandbanks in the South China Sea (e.g. Keck 2013; Kazianis 2013). Both of these tactics are aimed at throttling global – and in particular maritime – flows and challenging open access to the global maritime commons. It is thus hardly surprising that they are understood as a direct and concrete threat by other regional powers and the United States, which regards its command of the global commons as one of its major strategic goals.

The geography of the seas is also changing in other respects. The expected opening of new sea routes across the Arctic, as a result of climate change, is likely to lead to an adjustment of global maritime flows as well as greater competition for Arctic fish and energy resources – although the pace and scope of the adjustment remains very much an open question. New and planned large-scale infrastructure projects – including the expansion of the Panama Canal, the Sino-Burmese pipeline project, and plans for building a canal across the Kra Isthmus – will lead to maritime traffic being diverted along new sea routes. The shale gas boom in the United States and the expected growth in LNG traffic are changing the patterns of oil trade and have raised questions over the US willingness to continue guarding critical sea lanes. While the Atlantic is likely to rise in importance as an energy supply route for Europe, India and China have seized on reduced US imports from Latin America and West Africa. Inevitably, this redirection of maritime flows shifts geopolitical attention to new maritime spaces, in particular the Arctic, the Indian Ocean, the South Atlantic and potentially the

Caribbean. As powers flock to these areas and seek to bolster their position there, friction of one sort or another is likely.

Growing commercial interest in the exploitation of maritime resources is adding further pressure for international competition, in particular in the more scantily regulated high seas areas. Deep-sea mining, long a sailor's pipedream, is slowly coming of age due to new technological developments and high prices for certain rare metals. Competition for the extraction of polymetallic sulphides, cobalt-rich crusts and manganese nodules is fuelling the sometimes frantic global race amongst emerging economies (Park and Padma 2012). Recent discoveries of rich rare earth deposits on the Pacific seabed, in particular, could trigger a new resource race and challenge China's rare earth monopoly. However, any rush to develop the extraction of these mineral resources, regulated by the International Seabed Authority, could have lasting environmental consequences if undertaken without sufficient regulation and oversight.

At the same time, deep-sea mining is also an effective means of accessing and monitoring disputed and strategic waters and as such should be seen in conjunction with the increasing re-territorialization of the seas (Stratfor 2012). It is therefore no surprise that China, India, Japan and South Korea are all locked in a frantic race to explore and extract the mineral resources of the Indian Ocean, South China Sea and East China Sea. Most of these actors have now staked expansive claims to vast areas for exploitation in the Indian Ocean that harbour the potential for further politicization and competition. Competition for dwindling fish resources and the advent of large illegal fishing fleets, many of them Chinese, have further added to the maritime resource race currently underway. Illegal, unreported and unregulated (IUU) fishing by Chinese fleets has reached critical proportions, especially in West Africa, with estimates suggesting that China only reports 9% of its annual catch. In the Asia-Pacific, IUU incidents commonly spark security stand-offs and political crises, as witnessed recently between the Philippines and Taiwan (Blomeyer et al. 2012).

Finally, states and multinational enterprises are no longer the only actors within this diverse and contested maritime environment. The growing density and importance of maritime flows has also encouraged the growth of illegal maritime non-state actors, such as pirates, terrorists and criminal syndicates. These actors can create international bottlenecks by limiting the freedom of navigation in ill-controlled areas and by leeching onto existing maritime flows. State failure, in particular around the Horn of Africa and West Africa, has

enabled illegal actors to grow, and disrupt international commerce. In response, the use of private maritime security companies (PMSCs) has been on the rise. The rapid growth of private security actors has added further complexity to the situation, given the lack of an accepted international legal framework and the difficulty in controlling their actions.<sup>30</sup> Although PMSCs have great potential, their regulation is necessary and requires a common international response.

Together, these changes make for an increasingly complex and contested international maritime environment. The exponentially greater number of state and non-state security actors increases uncertainty and the potential for confrontation. Technology has reinforced this trend and empowered new and rising powers that are more willing to challenge the existing ground rules. Having been the main benefactors of free global flows, these powers now seek to control and exploit them and thereby fuel a dynamic that is leading to the gradual re-territorialization of the seas and a revision of existing maritime legal norms. The growing interest in fish and mineral resources degrades the marine environment and fuels a competitive logic. All of these changes appear to point towards the emergence of a more fragmented and competitive post-American maritime context.

#### 4.3

#### THE END OF MARITIME HEGEMONY

The global maritime balance of power has been dominated by the United States ever since the end of the Second World War. While the Soviet Union challenged and limited the reach of US power during the Cold War, for the most part it was the United States and NATO that controlled and regulated access to the maritime commons, and that provided maritime security across a large swath of the world's oceans. With the end of the Cold War, the United States' unchecked dominance of the seas provided the basis for a period of American unilateralism. Throughout this period, the US used its pre-eminence as a naval power to project power on land, as it frequently did over this more than twenty-year interval. However, the rise of new centres of power is having a profound impact on the evolving global maritime balance.

30 See e.g. Oceans Beyond Piracy, "An Introduction to Private Maritime Security Companies", <http://oceansbeyondpiracy.org/>.

<b>Navy</b>	<b>Aircraft carriers</b>	<b>Other surface combatants</b>	<b>Submarines</b>	<b>Principal amphibious ships</b>	<b>Patrol and coastal combatants</b>
USA	11	103	71	29	28
China		78	71	1	211+
Russia	1	32	65		80
India	1	20	15	1	61
Brazil	1	14	5	2	42

Over the last decade, a number of emerging and resurgent powers have initiated a series of ambitious fleet-building programmes. Many of these programmes are aimed at acquiring important new power projection capabilities. China, Russia, India and Brazil are all in the process of developing their own carrier and amphibious warfare capabilities that will enable them to project power beyond their territorial waters (Veens 2012). Inevitably, neighbouring countries have reacted by improving their own capabilities, leading to a series of major naval build-ups from the Mediterranean to East Asia. At the same time, domestic financial problems have forced the US and other Western countries to cut back their own naval capabilities, narrowing their reach and pre-eminence over the oceans. Simultaneously, a number of actors have acquired a range of asymmetric anti-access and area-denial (A2/AD) capabilities with the potential of blunting the US Navy's conventional military strength and interrupting maritime flows (Abisellan 2012).

Although the United States has seen large increases in military spending throughout the 2000s and is likely to remain the predominant naval power during the coming decades, its relative power is undoubtedly receding as a result of this global rebalancing. This "elegant decline", noted by several naval scholars, is forcing the United States to re-examine its own global maritime strategy and posture, and might lead to a reduction of maritime security in some areas, as the US pivots towards Asia (Kaplan 2007; Palmer 2010).<sup>31</sup> The impact this power rebalancing will have on global maritime security depends entirely on the evolving geopolitical climate and whether emerging powers use their new capabilities to enforce the

Table 1:  
Naval capabilities  
of major powers  
(Source:  
IISS 2012)

31 On the US "pivot to Asia", see e.g. Clinton (2011) and Economy et al. (2013).

openness and stability of the maritime commons, or to limit access and bolster national territorial claims.

This has raised the question of why emerging powers are pursuing these capacities in the first place. Navies have traditionally been built and maintained for defence, to safeguard national interests and to project power or influence. The opponents of national navies have primarily been other states and non-state actors, such as pirates, or combinations thereof. However, maritime power is not exclusively synonymous with naval warfare. It is a much broader concept that entails the control of international trade and commerce; the usage and control of ocean resources; the operations of navies in war; and the use of navies and maritime economic power as instruments of diplomacy, deterrence, and political influence in times of peace (Tangredi 2002). Thus, emerging powers have sought to acquire maritime power capacities for a variety of reasons aside from their territorial defence or their strategies of national expansion.

First, the world's oceans are home to a growing number of active and dormant territorial conflicts, from the East and South China Seas to the Arabian Gulf and the Mediterranean. Many of these involve conflicts over the delimitation of exclusive economic zones (EEZ) and the ownership of contested islands. The opening of the Arctic, to which several emerging powers are drawn for trade and economic resource reasons, has added a new set of issues (Käpylä and Mikkola 2013a; 2013b). Although there is almost universal political agreement that the militarization of the Arctic should be avoided, the reality is that currently only militaries are capable of providing some of the services needed for commercial shipping. Moreover, given the weakness of the UN Convention on the Law of the Seas (UNCLOS), claimants with the best-developed tools will be the most capable of exploiting the "legal limbo in maritime disputes" (Holslag 2012, 5). Foreign fishing fleets, for example, are able to deplete the fish stocks of other countries lacking these capabilities. China, similarly, exploits these weaknesses effectively to widen its claims in the South China Sea.

Second, the control and protection of critical sea lanes and infrastructure has grown in importance for new emerging powers in line with their growing economic capacities and needs. In 2010, 47 per cent of Chinese oil imports came from the Middle East and another 30 per cent from Africa (US Energy Information 2012). Without these supplies, the Chinese economic engine would grind to a halt, making the protection of the sea lanes a vital national interest for China. Moreover, due to the rapid increase in carbon fuel prices and

the growing demand for rare metals over the last decades, deep sea drilling and ocean floor exploitation have become financially more feasible. This has led to an increase in offshore prospecting and drilling in many parts of the world's oceans and revived dormant conflicts over delimitation, as in the South China Sea. Just like critical sea lanes, these critical sea-based infrastructures, such as oil platforms and pipelines, once constructed, are seen to require enhanced maritime security and protection from other actors, as for example the recent case of Greenpeace activism at the Prirazlomnoye oil rig illustrates. Given the growing density of sea-based infrastructures and the loose regulatory context, this heightens tension.

Third, the perceived importance of littoral waters (green and brown water) has increased significantly. For most states, these have been the only maritime environments in which they operate, so the new dynamic is about mixing naval capabilities that are relevant on the oceans with those needed in shallow, often archipelagic coastal waters. For navies, operating in littoral waters is more dangerous than being at sea, and requires them to consider other potent actors. The increased effectiveness and proliferation of land-based anti-ship weapons and small-boat tactics means that in littoral environments traditional navies are more vulnerable than previously. Technological change and the availability of A2/AD capabilities consequently encouraged the development of counter capabilities – air and ballistic missile defence ships, anti-mine ships, drones and stealth technologies are some examples. This dynamic has been driving a maritime arms race in the Pacific Ocean in particular.

Finally, maritime power still remains a visible expression of international status and military prowess. After centuries of foreign domination, navies are therefore regarded as an emblem of national pride and independence, in line with other status symbols and prestige projects, such as national airline carriers, stealth fighters or skyscrapers. Emerging powers have pursued these status symbols with increasing vigour, partly in order to bolster their claim to a new role in the international system. Thus the active pursuit of naval shipbuilding programmes across Asia has some uncanny historical parallels with the build-up of the Imperial German navy prior to the First World War. Nationalism has become a powerful driving force for many emerging powers and encourages the pursuit of these prestige projects. A long history of mistrust of American and Western power and intentions and a strong desire for military autarky further fuels this naval build-up with a particular focus on home-market development.

For all of these reasons, there has been a visible increase in naval assets and capacities amongst a broad range of actors. Although this proliferation of naval assets does not in itself pose a direct challenge to global security, it does have the potential to cause greater confrontation amongst some of the emerging players, and between them and the United States. While economic interdependence and globalization have significantly reduced the likelihood of a naval conflict between the great powers, history has shown that this in itself is not a sufficient condition to prevent naval conflicts from arising. As economic nationalism and protectionism grow, seemingly peripheral incidents and localized disputes have the potential to escalate into broader conflicts. However, the huge costs attached to any such conflict and the low probability of an outright victory in any naval confrontation will continue to act as a strong deterrent against a clash between major powers for the time being.

While any direct confrontation between the US and China therefore appears unlikely, this does not preclude the possibility of clashes between middling powers, proxy wars, or low-intensity and covert conflicts. With both China and the US vying for allies around the Asia-Pacific region, this might encourage brinkmanship behaviour by small states eager to exploit the backing of one of the great powers to bolster their own territorial claims. Similarly, great powers might attempt to use proxies in order to change the strategic balance in certain regions, while avoiding direct confrontation. Clashes amongst the rising powers can also not be entirely ruled out within the foreseeable future. For example, China's attempts to widen its influence in the Indian Ocean put it at odds with a rising India and have fuelled competitive dynamics. Conflicts amongst middling powers, such as the two Koreas, also have the potential to draw in a wide range of other actors. Finally, low-intensity and covert actions involving sabotage and non-state actors to bolster competing spheres of influence are not unlikely in the future.

#### 4.4

#### THE BATTLE FOR THE MARITIME ROUTES

Given the structure of today's global political economy, Europe, including Finland, is ever more tightly integrated into a complex global supply and production chain that relies to a great extent on sea-based transport and technologies. Although intra-European trade still represents the lion's share of European economic exchange,



EU trade with the rest of the world – and particularly with Asia – is steadily increasing. Moreover, the supply of energy and raw materials from the global marketplace has become vital for the functioning of the European economy. This makes security of access to the global commons a vital strategic interest for Finland and the EU, just as it is for other traditional and emerging global players. Moreover, free access to the global maritime commons represents a key piece in the wider global architecture that is based on free economic exchanges and flows. This means that any challenge to the openness of the maritime commons represents a potential threat to this architecture as such.

Most of the vital maritime flows that sustain today's globalized system of production traverse the world around a limited number of highly congested and easy to disrupt sea lines of communication (SLOCs), or simply maritime routes. Controlling the access to and the flow through these maritime corridors has become of vital strategic importance for the world economy at large, as well as for the actors that use them to sustain their economic activity. This makes the places these corridors traverse highly sought- after real estate and conflict magnets.

Due to their current centrality to the global flows, much geopolitical attention has focused on a limited number of these corridors: a southern corridor, connecting the Mediterranean with the Gulf of Suez, the Red Sea and the Gulf of Aden, where it branches out into connections with East Asia and the Arabian Gulf carries much of the hydrocarbon energy around the world; an eastern corridor, stretching from the East and South China Seas through the Malacca Strait into the Indian Ocean, where it connects with other traffic bound for Europe; and a western corridor, casting a wide arc over the Atlantic to connect Europe with the Americas. The potential opening of a new northern corridor, running along the Russian Arctic coast and through the Bering Strait into the Pacific, which could significantly cut transport time and costs to Asia, may generate a great deal of added geopolitical friction in the future (Mikkola and Käpylä 2013).

Maintaining open and uninterrupted access through all four of these corridors is vital not only for international trade and commerce, but also for maintaining a stable global security system. While secure passage along these routes can be considered a shared global interest, the southern, eastern and northern corridors are dotted with strategic choke points, such as the Malacca Strait, the Bab-el-Mandeb, and the Strait of Hormuz, which can easily be blocked by state and non-state actors. Only the western route, across the Atlantic, remains relatively invulnerable

to disruptions, but is also more difficult to control and police, attracting the attention of criminal networks and non-state actors.

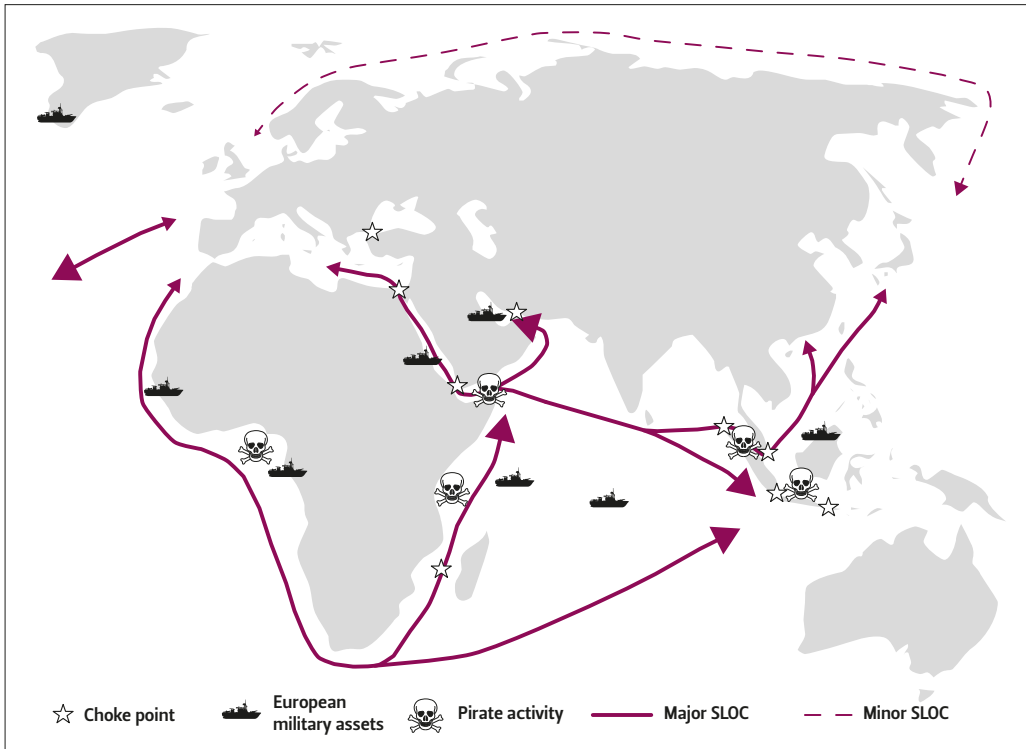


Figure 11:  
Global maritime  
choke points  
(Source: Behr  
et al. 2013)

The mere potential for disruptions along these various strategic choke points makes them lightning rods of geo-strategic attention and encourages local friction and global power competition over their control – as has been the case in previous centuries. It also provides littoral countries with considerable leverage to extract political and economic rents, as they have learned to do with great acumen. As flows through these choke points intensify, international interests and competition over their control have increased exponentially. The US, in particular, has become increasingly aware of its vulnerability at these points and has directed additional resources to their control. China, it is sometimes suggested, has sought to secure its own strategic choke points along a “string of pearls”, stretched through the Indian Ocean (e.g. Holmes and Yoshihara 2011; Holmes 2013). The regions where those two lines of interest intersect have become areas of intense geopolitical contestation.

This has led to a dual dynamic under which land-based conflicts and instabilities radiate outwards towards the sea, while sea-based rivalries radiate inwards fuelling territorial conflicts. There are various examples of this dynamic. In the case of Somalia, for example, domestic land-based disorder and chaos has led to a considerable destabilization of adjacent maritime areas in the Indian Ocean, attracting one of the largest international maritime operations to date. Across the Horn of Africa, on the other hand, geo-political competition and interests in controlling sea routes are radiating inwards, worsening and in some cases fuelling domestic conflicts and confrontation. Similar dynamics are increasingly at play across the Indian Ocean and the South China Sea.

Yet global friction is not only intensifying along these arteries of international commerce, but also when it comes to the exploitation of certain sea-based resources. Due to the loose nature of international maritime law, might is often right. This has provided a powerful incentive for emerging powers to establish facts on the ground by staking claims to remote islands, reefs and sandbanks. By staking sovereign claims to these areas, emerging powers are not only fuelling a process of fragmentation, but also progressively unhinging the very same legal norms that have been a cornerstone of the global maritime system. This is again particularly evident around highly contested areas, such as the South China Sea. Here, the Chinese navy has purposefully pursued a cabbage tactic to gradually weaken the hold of other regional actors on particularly contested areas and expand its own claims.

As the international maritime legal system disintegrates, the sustainable management of common maritime spaces and resources becomes increasingly uncertain. Pollution, overfishing and the growing potential for ecological disasters are the result, and can have dire consequences not only for littoral countries, but also more widely as they have an impact on the maritime ecosystem. Local contingencies can have significant political spill-over effects by, for example, encouraging the growth of illegal maritime activities or fuelling resource competition and regional crises. Thus, there has been some evidence that overfishing around the Horn of Africa interacts in a complex way with piracy off the coast of Somalia (Hansen 2009; 2012; UNSC 2011).

Sustainable management and control of the global maritime commons is also important to prevent their exploitation by illegal maritime actors. Pirates, terrorists and crime syndicates are able to thrive in the lawless and uncontrolled spaces of the seas around the

Horn of Africa and the Gulf of Guinea. These areas can also function as refuges from which these actors can project power onto land. This has been particularly true of the difficult to control South Atlantic, where growing criminal activities – in particular drug smuggling networks connecting Latin America and Europe via West Africa – have contributed to the progressive destabilization of several countries. Mali, not least, has been one of the countries where these criminal activities have been fused and reinforced by ethnic, religious and ideological conflicts, resulting in a combustible mix that has destabilized an entire region (e.g. Wigell and Romero 2013, 5).

Finally, maritime security and safety standards and environmental regulations all require a common global framework to ensure their global application. For these various reasons, the progressive weakening of this framework poses a serious challenge to global maritime security more broadly.

In the past, the international maritime system revolved around a combination of commonly accepted legal norms and the threat of American naval power to deter any challenge to the “security of access” of the global commons, and to maintain a guaranteed level of “sustainable management” of the high seas. While international rules and commonly accepted standards protected the global maritime commons from the worst cases of overexploitation and mismanagement, American power deterred any threat to the freedom of navigation, or the abuse of strategic choke points to extract political and economic rents. However, as the effectiveness of both of these tools has decreased, new vulnerabilities have appeared.

In sum, the evolving maritime security context harbours a number of new and unfamiliar challenges, the combination of which threatens to destabilize the global maritime corridors and the global maritime commons more broadly. Great power rivalry, proxy conflicts, lawless maritime zones, empowered rogue actors, a budding resource race, and fragile international regimes threaten to undermine the security of access and sustainable management of the global maritime commons. Maritime security challenges are also of an increasingly globalized nature, requiring action at a systemic level just as multilateral security cooperation is seemingly in decline. While it is not yet clear whether these developments will lead to an erosion of maritime security, systemic change has become a reality. After centuries in which the global maritime commons have been dominated by a succession of open, liberal and trade-oriented powers, they are increasingly becoming a reflection of our more fragmented multipolar international

system. Whether this will lead to more conflict or cooperation and whether it will emphasize global or regional solutions will determine the overall nature of the global maritime commons.

#### 4.5

#### WHAT FUTURE FOR THE MARITIME DOMAIN?

These changes suggest a number of widely different scenarios for the future of the maritime commons, illustrated in Figure 12:

*Global Governance:* Under the first scenario, growing economic interdependence and a diffusion of power will encourage greater multilateral maritime cooperation. With no single actor able to pursue its interests through military means, there is an incentive for all actors to agree to further strengthen international governance and conflict mediation, in order to jointly explore maritime resources and trade routes. The international law of the seas will be strengthened by further accessions to UNCLOS and the adoption of additional guidelines on conflict resolution and the governance of the high seas. Frozen maritime conflicts will be resolved in order to allow for the common exploitation of sea-based resources and to provide for security of the sea lanes, while international actors will work in concert to curtail the impact of crime, piracy and terrorism, and to protect fish resources.

*Maritime Blocs:* Under the second scenario, a global maritime governance system would be undermined by the growing competition between the US and China, and potentially by other emerging actors. Although it is likely that for the time being the US would maintain the upper hand in terms of capabilities and resources, it is possible that in the long run this would result in the formation of two maritime blocs. This could come about either due to a rapid increase in Chinese capabilities, or due to further cost-saving measures by the US. China would rule the roost in the Asia-Pacific, while the US would dominate the Atlantic and parts of the North Pacific. Both would effectively set the code of conduct in their respective spheres of influence, while rallying multilateral coalitions behind them. Conflicts and frictions would arise where their respective spheres of interest overlap, most notably in the Indian Ocean and the Pacific. This could represent a combustible and potentially dangerous scenario in which conflict would be concentrated at the intersection of those two spheres of interest.

*Regional Governance:* Under the third scenario, a greater diffusion of power would prevent great power confrontation, but also undermine a more consensual global regime. Instead, the focus would shift towards the development of regional security systems. In the Asia-Pacific region, ASEAN would be strengthened and provide a greater contribution to maritime conflict resolution. In the Indian Ocean, the Indian Ocean Naval Symposium would grow to fill a similar role. In the Mediterranean, the Euro-Mediterranean Partnership would deepen and tackle long-standing frozen conflicts. While the effectiveness and rules of these various regimes would vary considerably, each of them would provide a measure of collective security, deter both internal and external challenges and threats, and provide security and stability for maritime commerce and resource exploitation. In the past, the EU has attempted to “export” its model of greater regional cooperation around the world, but has been largely unsuccessful. While a regional governance model would serve regional interests, it might restrict global access and fuel regulatory conflicts. Out-of-area actors, in particular, would be a source of conflict.

*Contested Commons:* Under the last scenario, the current rebalancing of maritime power would result in growing global fragmentation. This would imply that maritime power becomes increasingly diffuse, not just amongst different states and regions, but also between states and non-state actors. While the US will remain the pre-eminent naval power, it would no longer act as a guarantor of the global maritime commons, but focus on more narrowly defined national interests and goals. Dysfunctional regional and global governance systems would be unable to fill the gap, and economic nationalism and protectionism would increase and stymie global trade flows. The potential for territorial conflicts and regional tension would be high, without an effective international arbitrator. Regional hegemony might provide a measure of stability within their respective spheres of influence, but the number of ungoverned maritime spaces would inevitably grow, providing an incentive for uncontrolled exploitation, and empowering non-state actors to play a larger role and pose an unchecked threat to the SLOCs.

In the end, it is likely that the emerging maritime context will combine different elements of these scenarios. While the UNCLOS and multilateral institutions will continue to provide a broad framework for interaction, they will be increasingly loosely interpreted. Regional

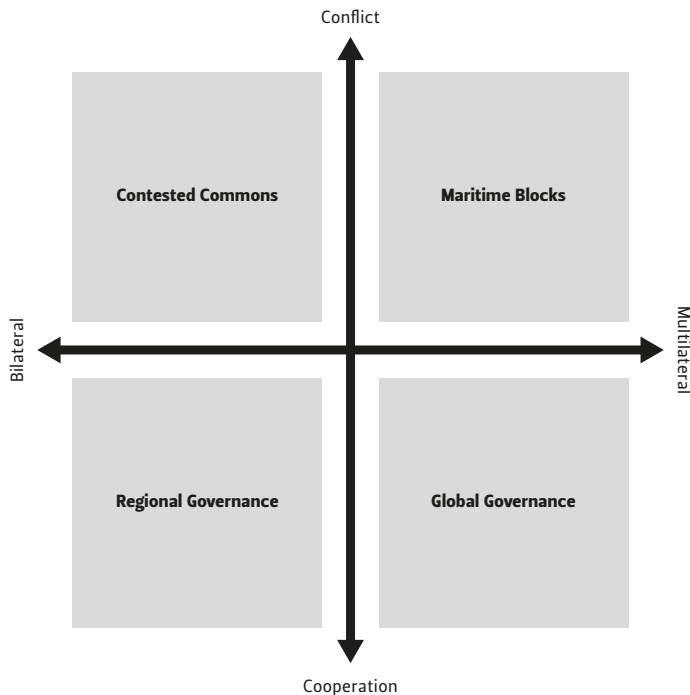


Figure 12:  
Future maritime  
governance  
scenarios (Source:  
Behr et al. 2013)

governance systems will proliferate, some will be more effective than others, and the US-China strategic competition will ebb and flow, but will not escalate into direct confrontation. Maritime alliances and blocs, in particular in highly contested zones, will provide some ordering logic and can both fuel and prevent conflicts. Private actors and maritime armed groups will maintain some disruptive power and require persistent vigilance, but will not challenge the dominant role played by state-based actors in the maritime commons.

All of this suggests that the new maritime reality will be more complex, unstable and vulnerable than in the past. This in and of itself will encourage further confrontational behaviour by various maritime actors. Navigating this more complex and chaotic maritime system at a time when the global system depends more than ever on maritime flows will be considerably more difficult for all actors than in the past, and will require careful manoeuvring and flexible strategies.





5



## 5. The Finnish maritime domain: The possibility of Arctic global flows?

### 5.1

#### INTRODUCTION

It is often said that – geopolitically speaking – Finland is an “island”, isolated not only by the long eastern land border with Russia, but also by the Baltic Sea in the south and west. As the Baltic Sea is the only international sea that Finland has direct access to, its importance should not be underestimated. In particular, the Baltic Sea plays a significant role in Finnish international trade. It is, in fact, the major space of contemporary trade flows to and from Finland. Approximately 80 per cent of Finnish foreign trade takes place through the Baltic Sea, and up to 50 per cent of Finnish imports and 40 per cent of exports take place with the Baltic Sea states (Wallin 2013). According to the 2012 statistics, Sweden (5.7 million tonnes) and Germany (4.2 million tonnes) were the two major sources of Finnish exports, whereas Russia (24.3 million tonnes) and Sweden (7.1 million tonnes) were significant in terms of import (Suomen tulli [Finnish Customs] 2013). The maritime logistics that facilitate this trade activity cannot be replaced by any other means of transportation due to geography and large cargo volumes. It is thus relatively obvious that not only is the Baltic Sea important for Finnish trade, but that any disruptions to Baltic maritime flows would pose a serious threat to the Finnish economy and to the critical functions of Finnish society.

The Baltic Sea, in its totality, is a highly trafficked maritime area – even on a global scale. As much as 15 per cent of global maritime traffic takes place in the Baltic Sea, making it one of the busiest maritime environments in the world. There are approximately 2,000 vessels

operational in the Baltic at any given moment, and around 3,500–5,000 ships ply its waters each month (HELCOM 2012, 1). In terms of volume of energy transport, particularly oil, the Baltic Sea is surpassed only by the Straits of Hormuz and Malacca (Salonius–Pasternak 2013). Given this intensity in Baltic maritime activity – illustrated in Figure 13 – there exists the constant threat of a serious environmental or other major accident in this busy maritime domain. In fact, 2011 statistics indicate that there were 121 reported shipping accidents of varying degrees of severity in the Baltic Sea area – 3 less than in 2010 (2.4% decrease) but 16 more than in 2009 (15% increase). Most of these took place very close to shore or in harbours (HELCOM 2012, 7).<sup>32</sup>

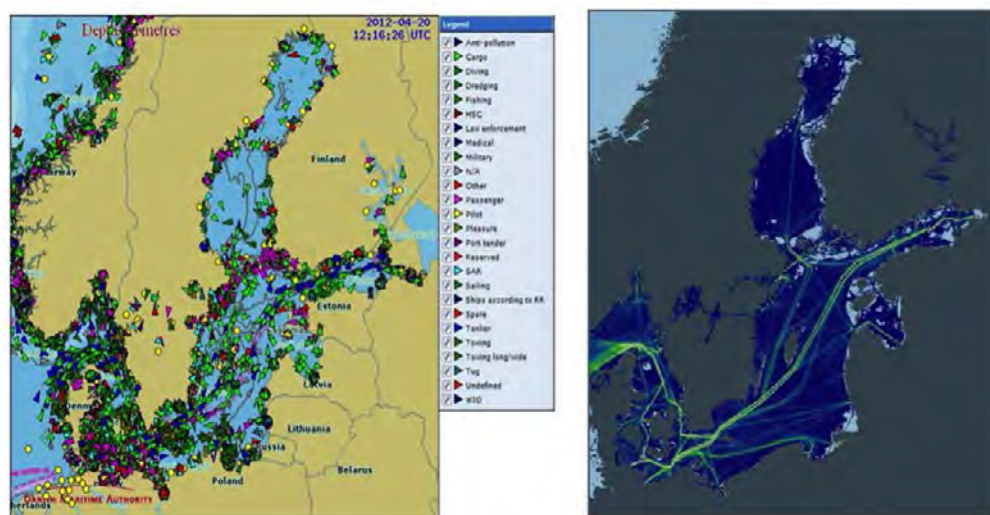


Figure 13:  
Ship traffic on 20 April, 2011 (left) and the density of shipping during 2011 (right) in the Baltic Sea (Source: HELCOM 2012)

Although the security situation in the Baltic Sea region is typically approached from the point of view of comprehensive security, which covers various non-military aspects of social life, there are also traditional hard security issues that need to be taken into consideration. First, politically more assertive and militarily more capable Russia has caused some concern among the Baltic states and beyond (Gvosdev 2013). This is especially the case when taken together with other factors, including the perceived decline in the internal cohesion and solidarity in the EU as well as NATO (Haukkala 2012, 34), the assumed,

32 For further details on various accidents in Finnish territorial waters or involving Finnish vessels, see Trafi (2013).

albeit overstated US “rebalancing” between its European, Middle Eastern and Asian commitments (Economy et al. 2013),<sup>33</sup> and the recent Russian expansive activities in Ukraine. The consequences of Swedish military transformation, and particularly the emergence of a potential security vacuum in the Baltic Sea region due to a mismatch in Swedish capabilities and aspirations, may also factor into this (Salonius-Pasternak 2013).

Secondly, as pointed out, the Baltic Sea is also the third biggest energy corridor in the world, with only the Straits of Hormuz and Malacca surpassing it in volume. Approximately 40 per cent of Russia’s energy exports are conducted through the Baltic Sea, including maritime oil tanker traffic and Nord Stream pipeline gas flows. In addition, the strategic importance of the St. Petersburg area for Russia is considerably high, not least due to two maritime ports (Primorsk, St. Petersburg) for Russian energy and other exports in the region. These factors highlight the strategic importance of the region for all Baltic states and Russia in particular.

While the Baltic Sea has experienced a renaissance in hard security concerns (vis-à-vis Russia in particular), it is also an area of military co-operation. There is a military presence in the Baltic, and its waters host exercises by NATO, NORDEFCO and Russia, among others. One can expect regional military cooperation to increase even further as a result of intensifying and broadening Nordic defence cooperation. In the near future, this is likely to entail cooperation in maritime and air situational awareness, capability development, exercises, international crisis management, and possibly also in military procurement by Nordic states, with the aim of achieving interoperability, improved quality, and cost-effectiveness (e.g. FDF 2013a; 2013b). Given the existing and assumedly intensifying cooperation, the possibility of any military conflict in the Baltic Sea region is still considered to be negligible.

33 This was initially known as the US “pivot to Asia”, the core of which was the idea that “[o]ne of the most important tasks of American statecraft over the next decade will [...] be to lock in a substantially increased investment – diplomatic, economic, strategic, and otherwise – in the Asia-Pacific region” (Clinton 2011). However, as Fullilove (Economy et al. 2013) observes, there are various reasons for scepticism with regard to this: “Secretary of State John Kerry has been an infrequent visitor, with a focus on an Iran nuclear deal and Middle East peace. The military elements of the rebalance are underwhelming. Some of the pivot’s main proponents – including Hillary Clinton, Kurt Campbell and Tom Donilon – have left. And some U.S. policymakers are still drawn to the Middle East like iron filings to a magnet.” Today, it looks like the fear that the US would simply abandon Europe is exaggerated, especially due to activities in other strategically important sectors, such as trade (ТТІР) and intelligence co-operation.

It is highly significant – also from a security policy point of view – that the Baltic Sea region is characterized by regional economic interdependency. Illustrative of this, around 70 per cent of the foreign direct investment flows (FDI) to Finland come from the Baltic Sea countries and, conversely, 40 per cent of the Finnish FDIs go to the Baltic Sea countries (Järventaus 2012, 30). This correlates with the above-mentioned importance of the Baltic Sea region for Finnish foreign trade, as the key space of international trade flows and partners. The Baltic Sea nations are thus closely intertwined economically.

The Baltic Sea region is highly standardized and relatively well governed. The common Nordic and Baltic maritime situational awareness system (SUCBAS)<sup>34</sup> stands as a good example of this – even though Russia has refrained from participating in it so far. That said, there exist some new factors in the Baltic region in general that may also have geopolitical implications. For example, changes in the security of energy solutions of Baltic Sea actors – including the German energy transformation, the EU's internal energy market transformation, the future of Russian energy exports, the future of European shale gas development and the increasing use of LNG – may transform the region's energy policy situation. The planned new data cable connections – for example between Germany and Finland with a possible connection to a potential trans-Arctic cable between Asia and Europe – may have some implications for the strategic setting of the region. While new data connections are likely to increase national resilience and cyber security (in Finland) through an increase in the diversification of cyber connectivity, the increase in strategically important data flows is likely to increase incentives for covert monitoring by various players. It is also worth remembering that the consequences of the EU's sulphur directive for the maritime logistics and security of supply considerations remain to be seen. Lastly, the recent events in Ukraine, and particularly the widespread uncertainty about Russia's future international aspirations, are likely to have a spill-over effect to the Baltic security community.

34 See e.g. <http://sucbas.org/>. SUCBAS has its roots in the Finnish-Swedish Surveillance Co-operation (SUCFIS) on maritime situational awareness, which was extended to include various Baltic (Sea) states in 2009. SUCBAS aims at improving the information exchange between Finland, Sweden, Denmark, Germany, Estonia, Latvia, Lithuania and Poland, and enhancing the maritime security environment in maritime safety, security, environmental and economic matters by sharing knowledge in sea surveillance between the relevant authorities of the participating nations.

All in all, it seems relatively clear that the Baltic Sea is *the* most important maritime area and a space of flows for Finland. At the same time, however, it is also evident that the Baltic Sea is a relatively well-studied maritime domain, and there exists a relatively high level of shared understanding regarding the current and expected geopolitical state of the Baltic Sea region as an area of peace and co-operation, as opposed to conflict and unilateralism. In fact, it is possible to argue that the more acute and severe knowledge gaps concerning the broader Finnish maritime environment<sup>35</sup> lie elsewhere, particularly when it comes to the opening Arctic region – its causes, consequences and, to the extent that it is possible to assess, its potential future trajectories. Because of this, the focal point of the analysis of the Finnish maritime domain will be on the transforming Arctic and its implications for Finland.

Unlike the Baltic Sea region, the Arctic<sup>36</sup> is in many ways a new foreign policy frontier, not least because it has become an increasingly exciting part of contemporary global politics during the last decade or so. Due to climate change and technological innovations, the Arctic is becoming more accessible for human activities. These enabling factors suggest that the forces of globalization – such as global trade, financial and logistic flows – may dislocate many Arctic localities away from their established places on the geographical map towards a global hub-and-spoke modality. At the same time, the Arctic is potentially emerging as a space of global flows, or at least there are great expectations in this respect.

The transformation of the Arctic region may have significant implications for Finland. Finland, a peripheral “island” isolated by the Baltic Sea, might face geopolitical relocation if the emerging Arctic maritime environment – especially the Northern corridor – opens up and the Arctic resource bases are exploited in more significant volumes. This may be reinforced by the emerging nexus between the opening Arctic and the already active Baltic Sea region. This will most likely be

35 While Finland is an Arctic state, it lacks direct access to the Arctic Ocean and thus, strictly speaking, the Arctic is not part of the Finnish maritime environment. However, we argue for a broader view in which the developments in the Arctic Ocean – and in the Arctic region in general – have implications for Finland and thus, politico-strategically (though perhaps not operationally), parts of the northern polar region can be considered a part of the Finnish maritime environment.

36 The Arctic has various definitions. It may refer to the Arctic Ocean, the area above the Arctic Circle, the area above 60°N or, most broadly, the area with “Arctic conditions”. According to the accepted view, there are eight Arctic states: the United States, Russia, Norway, Canada, Denmark (Greenland), Sweden, Finland and Iceland.

the case if, for example, the existing plans for new railway and other transport connections (Lohi et al. 2012; JBTB 2013) in the Arctic–Baltic Sea nexus are realized, and new datacentres (the Google centre in Hamina, the potential Microsoft centre in Oulu) and data cable connections (the Baltic Sea cable from Finland to Germany and the trans-Arctic cable via the Northern Sea route) are materialized in full (Helsingin Sanomat 2013; ROTACS 2012; Finnish Government 2013; Helsinki Times 2013). In other words, the Finnish political geography could become significantly altered if the Arctic region was to transform into a major constitutive part of the global hub-and-spoke structures of natural resource, logistical, information and other flows. This calls for a critical analysis of the opening Arctic region and its consequences.

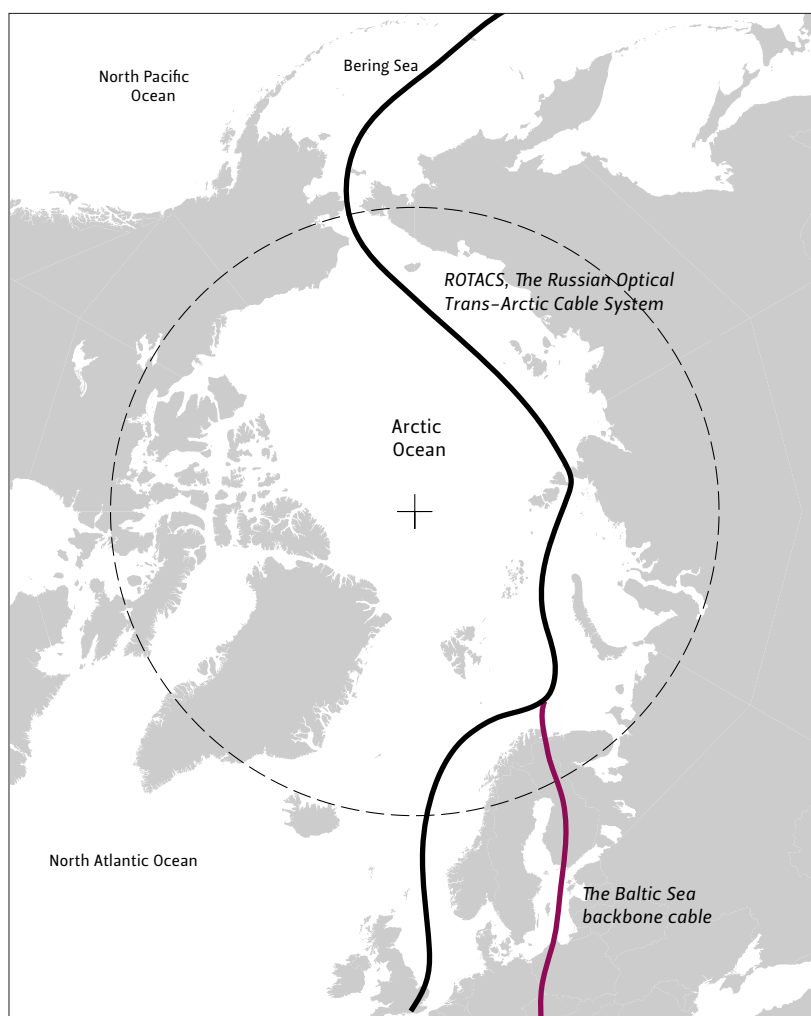


Figure 14:  
Trans-Arctic  
data cable and  
its potential  
connection to  
Finland and the  
Baltic Sea cable  
(Source:  
Pursiainen  
2013)



All this raises a number of questions pertinent to the analysis at hand. For example, is this development likely; are there reasons to believe that the opening Arctic will become integrated as a part of the global flows and flow infrastructures? What are some of the main enabling factors of the Arctic transformation? What are the key political drivers behind this potential development? Does the Arctic region provide a stable riverbed for the global flows, or is there conflict potential on the horizon that might disrupt or even undermine the economic flows in the region? Are there additional, more practical challenges to tackle besides the political ones for various flows to materialize through the region?

To answer these questions, this chapter provides an overall strategic analysis of the opening Arctic region, with a particular focus on the interconnection between geopolitics, economy and flows in the region. The analysis starts by elaborating on some of the key trends that characterize the contemporary *transforming Arctic*. This is followed by an investigation of the *key enabling factors* of the region's transformation towards a space of global flows: climate change and the economic potential stemming from this. These discussions prepare the ground for our analysis of the Arctic as a potential space of global flows. We will first analyze the *geopolitical potential* of the region to become a major point of gravity in global politics and flows by investigating the growing Arctic interests of the major global players: Russia, China, the USA and the EU. After this, we go on to analyze the possibility of the Arctic region to facilitate global flows by assessing the *conflict potential*, or lack thereof, in the region. We will then turn our attention to the economy and analyze *existing key practical challenges* that need to be tackled for the Arctic economic and logistic flows to become economically viable, more intense and more regular. This is achieved by providing an overview of the challenges in two main economic domains of the Arctic: maritime transport and hydrocarbon extraction. The chapter will conclude with a forward-looking assessment of potential Arctic trajectories.

## 5.2

### THE TRANSFORMING ARCTIC

“The melting of the northern polar ice”, write Heather Conley and Jamie Kraut (2010, 1), “has dramatically altered this once static geographic and oceanic region and is responsible for the new-found

profitability and geostrategic relevance of the region”. This concise passage highlights an increasingly well-known thesis that the Arctic region is not only transforming, but that it is also becoming increasingly important strategically and economically. Of course, we should not forget that this is not the first time in recent history that the Arctic has been important in global politics, and more precisely that the geopolitical significance of the Arctic has varied in recent history in different international contexts. In other words, it is worth remembering that the Arctic has played an important role in global politics even before the contemporary “Arctic hype”.

The Arctic was a strategically important region as early as *World War II* as allied forces set up sea lines of communication through the region in order to supply the Soviet Union in the war against the Third Reich. The geopolitical importance of the Arctic continued during *the Cold War* when it became a significant theatre due to the nuclear deterrent of both superpowers – the US and the USSR – in the region. The designated routes of intercontinental ballistic missiles, strategic bombers and strategic nuclear submarines either originated from or went through the Arctic, and thus emphasized the geopolitical importance of the region. This meant that the Cold War Arctic was a space of potential and actual military flows. In addition, the Arctic also housed the US distant early warning system – the DEW Line – that stretched from Alaska to Greenland, as well as significant Soviet nuclear test grounds, such as Novaya Zemlya (Golts 2011, 52–53; Conley 2012, 17–18).

With the *end of the Cold War*, however, the Arctic lost most of its geopolitical relevance and dropped off the global radar. The post-Cold War Arctic was primarily characterized by interaction and co-operation in “non-strategic” areas of scientific research and environmental protection in the High North. This interaction entailed the gradual “de-securitization” of the region and culminated in the birth of the Arctic Council (AC) in 1996 (Åtland 2008, 289–311).<sup>37</sup> However, *during the last decade* or so, the Arctic has made a flashy comeback and has become highly topical again. In fact, the area has re-emerged as a component of contemporary high politics, highlighted not only by the increase in global economic and strategic attention to the region,

37 In fact, the geopolitical status and dynamics of the Arctic started to transform even before the end of the Cold War. Symbolically, if not concretely, it was the 1987 Murmansk speech by Soviet Secretary General Mikhail Gorbachev that conveyed the vision of the Arctic as an international zone of peace and co-operation, and initiated the gradual process of “desecuritization” of the Arctic (that continued in the 1990s) as an element of the broader Soviet re-orientation.

but also by the publication of numerous national and supranational strategic documents on the Arctic.<sup>38</sup>

This contemporary transformation of the Arctic region is aptly illustrated by the recent changes to the agenda and mandate of the Arctic Council. Kiruna, the northernmost city of Sweden located in Swedish Lapland, hosted the eighth biannual ministerial meeting of the AC on 15 May, 2013. Traditionally, the AC has been a regional co-operative forum with a limited mandate on issues of sustainable development and environmental protection. This not only constructed the Arctic as an “internal affair” of the AC member states<sup>39</sup> and non-state representatives, but also excluded “high politics”, most notably economy and security, from the AC agenda.

From this perspective, two outcomes of the Kiruna meeting were notable. First, the meeting decided to grant several extra-Arctic players – including China, India, Italy, Japan, the Republic of Korea, Singapore and conditionally the EU – the status of permanent observers. This decision to *globalize the Arctic* went against the trend of self-imposed exclusion of the AC from the extra-Arctic world, previously reaffirmed only two years earlier in the 2011 Nuuk ministerial meeting, and legitimized new stakeholders in Arctic affairs.

Second, the Kiruna meeting placed important *new emphasis on the economy* for the Arctic Council. The Kiruna Declaration stated that the Arctic Council (2013) “recognize the central role of business in the development of the Arctic, and decide to increase cooperation and interaction with the business community to advance sustainable development in the Arctic”. To support this, a special task force was established to facilitate the birth of the Circumpolar Business Forum – or what is today known as the Arctic Economic Council (Arctic Council 2014). Compared to the previous environmental emphasis, this new economic focus in the official discourse is highly significant.

The Kiruna decisions reflect the new dynamics that the Arctic region is facing today. As an opening geopolitical frontier with exciting economic opportunities and serious environmental challenges, the Arctic is attracting an increasing amount of attention from a range of political actors, both within and without the Arctic itself. As a result, the Arctic can no longer be understood as a confined region, nor as

38 See e.g. <http://www.arctic-council.org/index.php/en/about/documents/category/12-arctic-strategies>.

39 Canada, Denmark (Greenland), Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America.

a set of specific soft issues dealt with by the Arctic states and local communities themselves. Instead, it is gradually emerging as a space of regional and (potential) global economic flows and as an instantiation of contemporary global geopolitics.

### 5.3

#### ARCTIC WARMING AS A FLOW ENABLER

The geopolitical and geo-economic importance of the Arctic is growing and this has implications for the very geography of the region. The key driver behind this transformation is global climate change and its regional manifestation, the rapid and exceptional warming of the Arctic, which has resulted in an intensified melting of the icy polar region. Climate change is thus a flow enabler that is making the substantial mineral and hydrocarbon resources, as well as new cost-effective and time-saving maritime routes between East-Asia and Europe, more easily exploitable – in addition to its other complex and problematic effects on the natural and social environment (more on this below).

The Arctic is warming up, and as a consequence, the ice cover on the Arctic Ocean is melting at an accelerated pace. This is especially the case with summer ice, during the yearly timeframe between August and early November. The extent of the summer ice has been decreasing about 8 per cent per decade, and the thickness of the ice has decreased 40 per cent over recent decades (AMSA 2009). The extent of the Arctic summer ice cap is now 49 per cent below the 1979–2000 baseline average extent (see Figure 15). Some estimates suggest that as much as 70 per cent of the total Arctic ice volume may have been lost (The Arctic Institute 2013). Temperature-wise, the Arctic land areas are now 2 degrees Celsius warmer than in the mid-1960s (see Figure 16).

Empirical scientific evidence – most recently compiled by the Intergovernmental Panel on Climate Change (2013) – shows that man-made activities have resulted in intensifying global warming and that the climate is changing more rapidly in the Arctic than anywhere

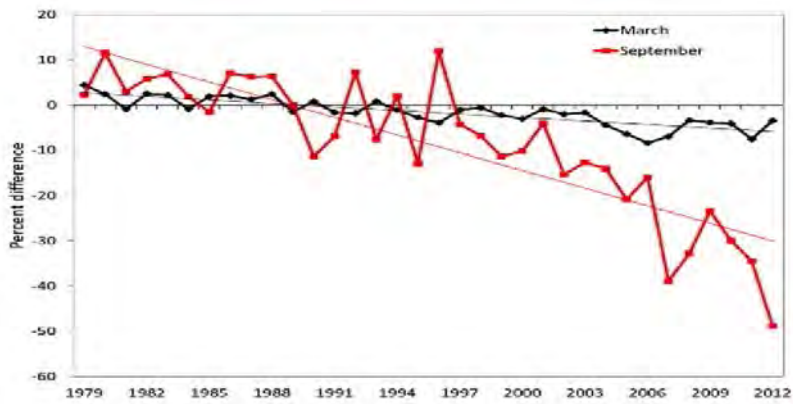


Figure 15:  
The reduction  
of Arctic ice  
extent, 1979–  
2012 (Source:  
NOAA 2012)

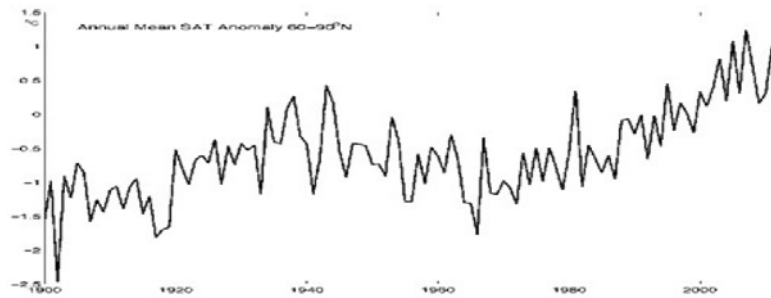


Figure 16:  
The rise in  
Arctic land area  
temperature,  
1900–2011  
(Source:  
NOAA 2012)

else on the globe.<sup>40</sup> The combination of Arctic warming and melting ice reduce the so-called “albedo effect”. In other words, the Arctic warms at an ever-accelerating pace when more and more dark surfaces (ground, ocean) replace the white ice and snow coverage. These dark surfaces absorb more sunlight during the summer, which makes the ocean and air warmer, which again results in more ice melting. This effect, combined with other environmental changes – such as changes in cloud and wind patterns as well as in moisture and heat movements – creates a complex process known as “Arctic amplification”, which

40 The Intergovernmental Panel on Climate Change (IPCC) published its most recent, fifth assessment report in September 2013. According to the report, if the global consumption of energy and the resulting greenhouse gas emissions continue at the current level, this will lead to an increase in the global average temperature by nearly three to five degrees Celsius by the year 2100 compared to the current level. If, against all expectations, emission levels could be reversed by 2020, temperatures would rise, even in that case, one more degree. According to the report, the global temperature has risen by an average of 0.85 degrees from 1880 to the present. The pace of global warming, however, has been accelerating, especially during the past three decades. For more information, see IPCC (2013).

makes the Arctic ice melt faster and faster (*The Economist* 2012, 4). There is also the possibility that the Arctic warming and the resultant sea ice loss is further intensified by the release of methane – a super greenhouse gas – from the Arctic permafrost into the atmosphere. Some estimates suggest that the entire Arctic Ocean could be ice-free during late summer/early autumn in the near future, most probably by 2040 but possibly even earlier (e.g. Polyak et al. 2010, 1757–1778; Kerr 2012, 1591).<sup>41</sup>

This melting of the Arctic sea ice has two generally well-known and highlighted economic consequences. First, the *Arctic sea routes are becoming more easily accessible for maritime transport*. The melting Arctic Ocean has three main maritime corridors for the potentially increasing maritime transport flows: the Northern Sea Route (NSR), which runs along the Russian Arctic coastline between the Barents Sea and the Bering Strait; the Northwest Passage (NWP) on North America’s Arctic coastline from the Beaufort Sea to Baffin Bay; and a Transpolar Sea Route (TSR) that runs straight through the Arctic Ocean (see Figure 17).



Figure 17:  
Arctic sea routes  
for potential  
regional and  
global flows  
(Source: The Arctic  
Institute 2012)

41 For more on Arctic ice reduction, see the U.S. National Snow and Ice Data Center, <http://nsidc.org/arcticseaicenews/>.

Climate forecasts indicate that the route that will most likely be open for commercial use during the summertime is the NSR. In fact, it has actually been more or less open annually during the late summer since 2005 with some year-round traffic, most notably between the Yamal region and the city of Murmansk in Russia. The forecast for the NWP is commercially less optimistic. This is because the NWP goes through the Canadian archipelago, which is significantly more ice-covered and more closed during the summer months as well, at least in the mid-term. As for the TSR, although the route may have significant potential in the future (e.g. for Asian maritime transport) and the multi-year ice has been noted to be decreasing, the route is still destined to have more severe ice conditions than the NSR, at least in the short- and mid-term (AMSA 2009, 5, 84–86, 89–90).

In addition to the retreating ice coverage, the amount of multi-year ice – namely thick ice that has survived at least one summer melting season – in central parts of the Arctic Ocean has been declining dramatically in volume (Polyak et al. 2010, 1758–1760). This trend is even more significant than the reduction in the sea ice extent since younger ice cannot fully strengthen itself during the winter, resulting in an ever-smaller and thinner ice cap during the summer, which is also easier for ships to break. These changes in ice patterns could mean the emergence of trans-Arctic shipping flows with considerable savings in logistical expenditure on cargo transport between East Asia and Northern Europe.

Second, the melting Arctic is seen *to reveal substantial new sources of hydrocarbons and minerals*. These resources, of course, need to be shipped from their source of extraction to regional or global markets, thus creating the regional basis of flows in and through the Arctic. In effect, this means that the growing potential for an Arctic economic boom is not so much dependent on the possibly increasing trans-Arctic transport alone, but is more related to the (shifting) global demand for Arctic natural resources, including natural gas and oil.<sup>42</sup> The exploitation of non-renewable energy sources in the Arctic is by no means a new phenomenon, as activities in Alaska and in the Russian Arctic (i.e. its Northern regions) have been going on for decades. However, these activities are expected to multiply when the Arctic becomes more accessible and when the technologies for energy extraction improve,

42 The Arctic also has a significant amount of mining activity, but for the most part we have omitted this from our discussion.

making development projects increasingly feasible and financially attractive for economic operators.

The 2008 US Geological Survey has famously estimated that the potential for Arctic energy source exploitation is huge. According to the Survey, as much as 13 per cent of undiscovered oil deposits and 30 per cent of undiscovered gas deposits on the globe are located in the Arctic area (USGS 2008a). This is assumed to mean that the new hydrocarbon prospects will make the Arctic region a globally significant energy reserve – a base for significant energy hubs – that will then boost the Arctic economy significantly.

According to 2009 figures, over 60 large oil and natural gas fields have been discovered in the Arctic, and the number has been growing (see Figure 18) (Ernst & Young 2013, 2). While still somewhat uncertain, the general assumption is that most of the new Arctic energy prospects are to be found on the continental shelves close to the shorelines of the Arctic coastal states. Russia's coast is expected to be more gas-prone, with the Norwegian and American Arctic coast being more oil-prone (USGS 2008b).

The Arctic is becoming more accessible for human activities. This is not only due to climate change, but also as a result of technological innovation, including advances in ship, communication, satellite, drilling, and navigation technology. While some of these technological

Figure 18:  
Main oil and gas prospects in the Arctic (Source: U.S. Energy Information Administration 2012)





advances are yet to be realized in the region (more on this below), these additional enabling factors will probably mean that the forces of globalization – such as global trade, financial and logistic flows – will dislocate many Arctic localities away from their established places on the geographical map towards a global hub-and-spoke modality. The million dollar question remains, however, to what extent and at what pace?

#### 5.4

##### THE GEOPOLITICS OF ARCTIC FLOWS: THE GROWING ARCTIC INTERESTS OF GLOBAL PLAYERS

The International Energy Agency (IEA) has recently estimated that around 75 per cent of global energy consumption in 2035 will continue to be reliant on fossil fuels, and furthermore, that the global energy demand will increase by 30 per cent during the same period (IEA 2012, 51). These estimates alone have increased the global political interest in the Arctic and its natural resource reserves, but this interest is enhanced by a combination of energy security of supply considerations (primarily related to the instability of the Middle East region) and the growing global demand for minerals and precious metals, many of which are available in the Arctic region. With its huge potential and melting ice cover, the opening Arctic may have major implications for energy and resource security, trade policy, power relations and the environmental concerns of several nations, inside and outside the region itself. As a result, issues, actors and stakes concerning the Arctic development agenda are about to multiply and become more complicated.

The key premise of this study is that modern life is increasingly based on interconnections and flows that cross state boundaries. But it is also emphasized that this mobile fabric is neither evenly spread nor freely accessible throughout the globe. The corridors in which actual flows become possible are to a large extent constituted and differentiated in ways that mirror the existing world order and its distribution of power and strategic interests. In this respect, the Arctic region is no exception. Global players have a major role to play in enabling, shaping and securing – or failing to do so – the emerging maritime corridors and flows of resources and goods in and through the region. In other words, global players shape the potential trajectories of the whole region as a potential space of flows. To understand the

geopolitical potential of the Arctic to transform into a point of gravity in global politics and for global flows, this section investigates the key Arctic interests of four major global players that are paying increasing attention to the opening northern region: Russia, China, the US and the EU. In so doing, the section also illuminates some of the key political drivers behind the globalization of the Arctic.

#### 5.4.1

##### *Russia: The key player in the Arctic*

Russia is *the* most important player in the Arctic, with significant economic, security and governance interests in the region. This is primarily because of *natural resources*. Over 20% of undiscovered global hydrocarbon reserves are located in the Arctic area and most of them in the Russian Arctic (Zysk 2011a, 96–97). These natural resources are vital for Russian national security and economy; oil and gas alone account for roughly 20–25% of Russian GDP (Simola et al., 4). Russia's domestic social programmes, infrastructure investments, and military modernization are all critically dependent on revenues from natural resource exports. Similarly, hydrocarbons provide important leverage for Russian foreign influence. This is especially the case with energy-dependent Europe, where a third of the natural gas consumed is imported from Russia (Ratner 2012). The Arctic plays an increasing role in this equation as a *strategically vital resource base* for Russia. So far, expert estimates suggest that the Russian Arctic has been responsible for about 10–15% of Russian GDP and 25% of its foreign exports (Zysk 2011a, 97), and there are systematic efforts to increase these figures.

Russia's increasing northward (and eastward) focus is also due to the fact that the country's mature hydrocarbon sources in Western Siberia are slowly drying up. Recent hydrocarbon activities in the Russian Arctic have taken place primarily through onshore projects in key locations such as the Yamal Peninsula<sup>43</sup> and in nascent offshore projects on the Arctic seabed in the Barents, Pechora and Kara Seas. These offshore projects have often taken the form of joint ventures between Russian and international energy corporations, including ExxonMobil, Total, ENI, and CNPC. This signals Russia's need to seek investments and technological know-how through international

43 The most notable of these projects is Gazprom's 'Yamal mega project', which consists of 11 gas and 15 oil, gas and condensate fields, including the Bovanenkovo gas field with the largest gas reserves in the area. For details, see <http://www.gazprom.com/about/production/projects/mega-yamal/>.

cooperation. However, key offshore projects – such as the Shtokhman gas field and Prirazlomnoye oil field – have turned out to be extremely challenging and have been plagued to date by continuous delays and the shuffling of foreign partners.<sup>44</sup> Russia has also set its sights on resource bases outside its territorial borders and submitted a claim for the extension of its continental shelf to the UN Commission on the Limits of the Continental Shelf (CLCS) process as early as 2001. This process is still ongoing at the CLCS.

In order to access, exploit and deliver Arctic natural resources to global markets, Russia also aims to *develop critical flow infrastructure* in the Northern Sea Route (NSR), including ports, search-and-rescue (SAR) centres, route administration, ice-breaking capability, and oil spill response capabilities. In addition, non-maritime parts of the Arctic transport system – pipelines, aviation routes, railways, and roads – and the overall socio-economic conditions of the region require development and modernization.

Russia also has *security interests* in the Arctic. Russia seeks to project its sovereign authority in its wide and increasingly active Arctic region through improved border control (FSB), to provide safety and security especially in the NSR, and to maintain credible forces to secure critical infrastructures and Arctic flows. Russia also seeks to maintain, develop and project a credible military force – primarily naval, aerial and missile assets – in the region in order to be able to react in various politico-military scenarios, as well as to deter the expansion of unwanted foreign military presence into the (Russian) Arctic. Russia also has strategic military forces in the Arctic, most notably the Northern Fleet and its ballistic-missile submarines (SSBNs). These mobile forces are of increasing strategic importance due to the challenges that Russian land-based intercontinental ballistic-missile capability faces today (Golts 2011; Zysk 2011b).

However, developments in Russian hard power in the Arctic have been relatively modest, especially if compared to the Cold War era, and there is widespread agreement that instead of re-militarization or the potential for a military conflict, Russia is seeking to govern and control its increasingly busy northern front and secure its interests therein (Lasserre et al. 2012; Wezeman 2012). Moreover, it is also worth bearing in mind that Russia considers itself a global power and that developments in Russian military forces – even in the Arctic (e.g. the

44 The first consignment of oil was transported from the Prirazlomnoye oil rig in April 2013.

Northern Fleet) – reflect its attempts to restore capability for global power projection to secure its broader international interests.

While Russia seeks to modernize and project hard power in the Arctic (and beyond), it is a pragmatic player that has relied on *international cooperation* to maintain stability conducive to economic activity and flows in the region (Zysk 2011b, 91). It has resolved long-standing border disputes through bilateral negotiations and endorsed multilateral governance in the Arctic. In particular, it has endorsed the Arctic Council as the legitimate institutional governance framework, including its recent Kiruna developments. Even if Russia is likely to harbour concerns about the growing role of China in the region and its governance, on the whole, Russia seems to have little to lose in the AC co-operation as the forum cannot produce independent and binding resolutions without Russia's consent. Instead, Russia needs to be present in every relevant forum where Arctic governance and its concrete forms and practices are developed.

Following this, Russia has also officially supported the United Nations Convention on the Law of the Sea (UNCLOS) as the legitimate multilateral legal framework for governing the Arctic Ocean, including the resolution of maritime boundary issues, resource disputes on the continental shelves, and maritime navigation disagreements. The key question that remains, however, is how committed pragmatic Russia is to supporting multilateral governance in the Arctic, for example in the event of a potentially unfavourable UN decision regarding Russia's claim to extend its continental shelf. In fact, recent events related to the Greenpeace protest at the Prirazlomnoye oil rig raise doubts about Russia's commitment and willingness to support the UNCLOS when its vital national interests, such as resource exploitation, are threatened.

In addition, Russia also has a primarily economically related interest in Arctic scientific research, for example in studying its continental shelf for potential hydrocarbon prospects. Russia has been less concerned than Western nations with the theme of "sustainability" in its Arctic policy, and its environmentalism has manifested itself mostly in an interest to clean up nuclear and other waste in the Arctic area.<sup>45</sup> Russia's expressed interest in the indigenous people also seems peculiar given the recent developments in its tightened NGO legislation in general, and its attention to the leadership issues of the Russian indigenous NGOs (e.g. RAIPON) in particular.

45 Of course, this is not to say that we should be particularly satisfied with the way "sustainability" is understood in practice in the West.

#### 5.4.2

##### *China: Preparing for the Arctic opening*

China approaches the Arctic as an Arctic stakeholder affected by Arctic developments, and as a global power entitled to have a say in Arctic affairs. China's interests towards the Arctic have been growing steadily and it has become a part of Chinese strategic discourse. Overall, however, the Arctic remains a relatively minor aspect of China's official foreign policy (Jakobson and Peng 2012). China's growing Arctic interest must thus be understood primarily as future-oriented, reflecting its aspiration to be prepared for the Arctic opening and its consequences.

The primary motive for China's gradually increasing Arctic interest is the *economy*. As a growing economy and a non-littoral Arctic stakeholder, China aims to secure access to opening Arctic shipping routes, which could offer substantial savings in maritime transport and diversify Chinese security of supply. China also seeks to strengthen its ability to access Arctic resource bases, including rich fishing waters in the Arctic Ocean, rare mineral deposits in Greenland, and hydrocarbons in Russia (Jakobson 2012). To promote these interests, China has moved ahead bi- and multilaterally. For example, it has upgraded its diplomatic representation in the Nordic region; signed numerous bilateral agreements, such as the 2013 Free Trade Agreement with Iceland; supported Chinese private investments, such as in the mining industry in Greenland; acquired offshore stakes and a share in the Yamal LNG project in Russia for its national energy company; and even leased a port in North Korea for a potential hub for Arctic transport in the future.

Global and Arctic warming not only offers economic opportunities, but also poses complex challenges for China. For example, due to changing weather patterns China will experience rising sea levels and food security problems. Consequently, China has an interest in *deepening its knowledge on climate change in the Arctic* in order to be able to mitigate and adapt to the effects it will have on Chinese society. This has led China to both invest in national research capability and promote international co-operation in scientific research on environmental and Arctic issues.

In fact, the Chinese have come to realize that the focus on Arctic climate change and international co-operation in scientific matters is not only useful in understanding complex climate dynamics, but may also amount to a promising "softer" political approach, as it does not foreground the more sensitive issues related to resource exploitation

and sovereignty, and does not paint China as a hawkish, aggressive or commanding rising power in the eyes of the littoral Arctic states. In fact, it enhances Chinese international legitimacy and attractiveness, provides China with opportunities for constructive partnerships with Arctic states, and might allow for China (or other states) to raise other strategically important issues in the softer context of environmental and climate change interactions (Jakobson 2010, 3-5; Jakobson and Peng 2012, 10, 15-16).

Participation in *Arctic governance* is also a growing interest for China. The UNCLOS serves as the key legal framework that China recognizes in the Arctic. As the country lacks direct access to the Arctic Ocean, it also recognizes the sovereign rights of Arctic littoral states. However, China emphasizes that international maritime law guarantees it certain rights in the Arctic maritime environment, such as the right of scientific research, the freedom of navigation, and also potentially the right to exploit natural resources – such as hydrocarbons and fishery – in the international waters of the Arctic Ocean (Jakobson and Peng 2012, 16-18). That said, China continues to have a vital national interest in foregrounding the importance of sovereignty and territorial integrity for two specific reasons: first, to prevent external interference in its own domestic affairs; and second, to defend its own sovereignty claims in the South and East China Seas, which do not rely on the UNCLOS procedure.

While endorsing the UNCLOS in the Arctic, China has nevertheless expressed two particular concerns. First, China is concerned that the extension of sovereign territory, and especially national Exclusive Economic Zones (EEZs), risks shrinking international waters in the Arctic, thereby possibly weakening its right to benefit from hydrocarbon and fish resources in those “common” waters. Second, China has also been concerned about the Russian management of the NSR and especially about the high icebreaker service fees that Russia demands with reference to UNCLOS Article 234. As the world’s largest shipping nation with over 40% of its GDP derived from the shipping industry, China fears that the potential commercial advantage of the NSR could shrink considerably if Russia continues to impose high service fees on the voyage (Conley 2012, 40; Jakobson and Peng 2012, 18).

China has also actively sought, and was recently granted, permanent observer status in the Arctic Council. This reflects China’s view that Arctic states do not have a monopoly on Arctic issues due to their global nature, and that the AC without China would be an inadequate institutional body to deal with Arctic issues. The permanent observer

status confers only limited rights on China in the AC, and it will have no voting rights, for example. However, China most likely considers that observer status not only transforms it into a legitimate Arctic player, but also that permanent observers themselves may well gain more influence in the AC in the long run, thus enhancing Chinese influence in Arctic management practices over time.

#### 5.4.3

##### *The United States: From a reluctant to an emerging Arctic player*

The US has traditionally been a “reluctant Arctic power” (Huebert 2009) that has paid a limited amount of policy attention to the region, and only primarily to its own Arctic backyard, Alaska. Lack of public awareness, long distances, the low-threat environment, budgetary concerns, and more pressing global issues have all ensured that the Arctic has remained in the background of policy-making. While the Arctic continues to be a relatively minor topic on the overall US foreign policy agenda today, the US has started to pay closer attention to the region with the publication of key strategic documents and high-profile participation in Arctic affairs. In short, the Arctic has gradually emerged as a “new” foreign policy frontier in the US (Conley 2013).

The *exploitation of natural resources* – gas, oil, and minerals – is the primary driver of contemporary US policy in the Arctic. To enhance US energy security and the economy, the Obama administration has encouraged the responsible development of domestic oil and gas production. In recent years, due to a declining trend in production in existing oil fields on the Alaskan North Slope, coupled with a lack of new onshore sites, there has been domestic pressure to explore offshore oil in the Beaufort and Chukchi Seas (Conley 2012, 3; Huebert 2009, 4–7). Major energy corporations from the US and abroad have acquired licences for offshore production blocks. These efforts, however, have been challenging and beset with delays due to US administration pressure after recent environmental accidents, such as the Gulf of Mexico oil spill in 2010 and the grounding of the Shell oil rig in Alaska in 2012. In addition, advances in unconventional gas and oil production have reduced the urgency to go Arctic.

Secondly, the US also has a range of *security interests* in the Arctic. Importantly, parts of US strategic deterrence, global missile defence and early warning architecture are situated or operational in the Arctic region. The issue of freedom of navigation in the Arctic is another important security interest for the US. This is because accessible and open international maritime routes are arteries of the global and US

economy and key enablers of flexible power projection by the US military. Consequently, the US is adamant about defending freedom of navigation and open sea lanes globally, including on maritime routes in the Russian (NSR) and Canadian (NWP) Arctic. This puts the US at odds with various littoral nations that emphasize their respective sovereignty in their adjacent maritime area. The status of Arctic maritime routes is a matter of global strategic significance due to the wider implications that an unfavourable precedent in the region would have for the principle of freedom of navigation in general (Conley 2012, 20–23; Kraska 2011, 258–262).

The US also has an interest, albeit currently inadequate capability, in providing safety and law enforcement in the increasingly busy and navigable Arctic maritime environment. That said, the US Arctic border does not rank as high in strategic importance as its southern borders do, and American policy-makers have been relatively content to have Canada upgrade its Arctic capability to govern the North American Arctic.

Thirdly, the US remains unshielded from the effects of global *climate change*. To understand and respond to complex environmental challenges, the US has invested in scientific research on Arctic environmental dynamics. In fact, the US has been a forerunner in international climate research, with notable climate scholars and established and prestigious research institutes (Conley 2012, 27–28).

The US approach to *Arctic governance* has been ambivalent. While de facto adhering to the UNCLOS, the continuing failure to ratify the treaty hampers US leadership in Arctic multilateral governance. Non-ratification also denies the States a legitimate legal framework to ensure freedom of navigation and settle disputes in the maritime environment, most notably in the NWP and NSR. Non-ratification also works against US economic interests by denying the country a legitimate legal framework to seek an extension to its Arctic EEZ. To date, the US has followed President Truman's unilateralist proclamation that resources in or below the US continental shelf are the sole property of the United States (Cohen 2011, 11).

The US policy on the Arctic institutional governance has also been ambivalent. Initially, during the 1990s, the US saw the Arctic Council as having only limited political importance, status, and role. Later on, due to a growing awareness of the economic prospects and geopolitical stakes of the warming Arctic, the US was willing to consider the group of five Arctic littoral states (the "Arctic Five") as a format to discuss topical issues, including those related to sovereignty and security in



the Arctic. This emphasis de facto marginalized the prospects of the AC further. However, in recent years, the US has reversed its policy on the Council and now regards it as the “pre-eminent forum for international cooperation in the Arctic” (quoted in Pedersen 2012, 149). After a long silence, the US has also endorsed the inclusion of new observers – including China – in the AC. This not only reaffirms US commitment to multilateralism in the Arctic, but also expresses increasing US willingness to strike new bargains with rising powers, such as China, *within* the parameters of the post-hegemonic liberal multilateral order.

#### 5.4.4

##### *The European Union: The Arctic gets closer to Brussels*

The European Union has started to show increasing interest in Arctic affairs. The EU is intimately connected to the Arctic region through its Arctic Member States as well as various EU competences, policies and regulations with a direct bearing on the Arctic in areas such as the environment, climate change, trade, energy, research, transport, and fishery. That said, the EU has never been a forerunner in Arctic governance, nor has it been accepted as a legitimate “stakeholder” by all Arctic states. This was mostly because of the EU’s politically insensitive stance towards sealing and whaling and because of the European Parliament’s politically unfeasible initial position, which suggested a comprehensive international treaty to govern the Arctic region on the basis of the Antarctic Treaty (Wegge 2012, 15–17).

Over time, however, the EU has come to adopt a more politically aware and conciliatory tone in its Arctic policy (ibid., 17–18). Today, the EU’s Arctic policy maintains that Arctic governance should be built on existing multilateral frameworks – the UNCLOS, the Arctic Council, and the International Maritime Organization (IMO) – instead of a new Arctic treaty, while simultaneously bearing in mind and respecting the sovereignty and national interests of Arctic states themselves. Due to the influence of various member states with divergent interests, the EU continues to lack a coherent Arctic strategy and moves forward at the level of policy statements. While the EU has sought a greater role in the Arctic, it has come to recognize that the Arctic states are the primary actors in the region and that the EU should focus its growing engagement on supporting existing successful co-operation and providing assistance in meeting new challenges in the region.

The first EU Arctic interest relates to *global climate change*, which has various environmental, social, economic and geopolitical implications for the Arctic region as well as for Europe. While the EU has tackled climate change at the global level, its emerging Arctic climate policy has started to emphasize up-to-date knowledge of regional climate dynamics and the need to invest in Arctic environmental research. These efforts are identified as requiring coordination between the EU, Arctic states and Arctic stakeholders.

Secondly, the EU also has significant *economic interests* in the Arctic. Europe is a major destination for Arctic resources. Around 25% of Arctic oil and gas output is destined for Europe, and 80% of the fish caught in Iceland and 60% in Norway are sold in the EU (Cavaliere 2010, 41; Neumann and Rudolf 2010, 8). Consequently, the EU seeks to secure access to Arctic resource bases in the context of intensifying global competition, and to influence policy development in the Arctic states towards favourable resource exploitation and management.

Almost 90% of the EU's trade is carried out at sea. As a result, the EU has a strategic interest in the future *development, security and stability of Arctic maritime routes* that may become globally important. Most notably, the EU supports the development of the "Polar Code" in the IMO, agreements on search and rescue and oil spill response capability in the AC, as well as the principle of freedom of navigation on Arctic maritime routes. With regard to the NSR, in particular, the EU has expressed its willingness to assist in the development of sustainable shipping on the route.

Thirdly, the EU also seeks to influence the *socio-economic development* of Arctic states and stakeholders through investment in research and funding for cross-border co-operation in the Arctic region. To foster further regional co-operation, the EU has also engaged in activity in the Arctic area via its Northern Dimension (ND) joint policy with Russia, Norway and Iceland.

The EU also endeavours to have a stronger presence in *Arctic governance*. The EU is already a member of several relevant regional institutional frameworks, such as the Barents Euro-Arctic Council and the Nordic Council of Ministers. The EU's likely forthcoming status as a permanent observer in the AC (in the absence of Russian objections) will increase its possibilities to influence the Arctic development, to stay informed on the Arctic development and other Arctic stakeholders' concerns, and to succeed in intensifying and globalizing policy competition with new Arctic stakeholders (Heininen and Bailes 2011, 93).

The Arctic has become increasingly important to major global players that are gradually turning or strengthening their political and economic attention towards the north. When the geopolitical stakes are growing and interested actors are multiplying, it is likely that the management of the Arctic will face more severe governance and policy challenges in the future. At the same time, existing regional challenges also remain to be resolved and they may have implications for the overall security of the Arctic as a space of flows. With still unsettled disputes, the opening Arctic offers an arena where major global power dynamics are displayed and different actors are trying to influence Arctic governance. In this section, we investigate the consequences of all of this for the development of the region as a space of flows: Does the increase in strategic attention to the Arctic correlate with an increase in intra-Arctic conflict potential? Will the Arctic be an area of cooperation or conflict? Can it serve as a stable riverbed for global flows or are there likely storms to be weathered in the future?

With regard to the Arctic conflict potential, in particular, an often-heard notion is that the huge natural resource reserves located in the Arctic will lead to some kind of “gold rush” or “land grab” when states compete to claim these reserves. Indeed, alarmist outlooks show remarkable persistence in predicting that the growing geopolitical and economic relevance of the area will lead to a new Cold War and military build-up in the Arctic (*The Guardian* 2012; Fox News 2012). This rhetoric characterizes the area as a *terra nullius*, defined by a forthcoming economic bonanza and realpolitik that together could create a “perfect storm” leading to an inter-state Arctic conflict.

However, during the past few years the Arctic paradigm has shifted from the “new Cold War” to “Arctic cooperation”. In this section, we argue – in line with recent scholarly observations – that one should not exaggerate the Arctic inter-state conflict potential nor follow the myth of the conflictual Arctic that continues to permeate popular imagery (Griffiths 2011, 3–4; Palosaari 2012; Exner-Pirot 2013).

We begin this argument by highlighting three potential intra-Arctic sources of interstate conflict that could produce flow disruptions or even undermine the very existence of Arctic global flows in the future: disputes related to territorial borders, maritime routes, and continental shelves. We then provide practical and critical insights into why the

assumed endogenous inter-state conflict potential in the Arctic is relatively low. However, we acknowledge that the potential for conflict can never be eliminated, but that the more likely source of dispute in the region that could endanger and disrupt existing and future flows in the Arctic stems from various, often highly complex and emergent global dynamics and circulations. Conflicts in other sectors or other parts of the world between Arctic (and other) actors could spill over to the region and harm its stability as a space of flows. We return to this exogenous, global perspective in the discussion of Arctic futures below.

#### 5.5.1

##### *Intra-Arctic conflict potential: Key disputes and governance challenges*

There are three potential endogenous sources of inter-state conflict in the Arctic that may endanger the Arctic as a stable space of flows. They all involve the key question of ownership – who owns and controls what in the region – and thus fall under a broad category of state sovereignty. First, there are unresolved border issues. However, these territorial disputes are few in number and mild in severity. The US and Canada remain locked in disagreement over a small slice of the Beaufort Sea, whereas Denmark and Canada have differing views on the ownership of the tiny Hans Island, located between Canada and Greenland. Despite significant hydrocarbon prospects in these disputed areas, the countries in question are all close allies and NATO members, and any serious conflict potential between them over these territorial issues is close to zero.

A second, and more prominent, endogenous source of conflict concerns disagreements over the control of two major Arctic maritime routes. There is a disagreement between the US (and the EU) and Canada over the status of the North-West Passage (NWP) running through the Canadian archipelago. Similar dynamics remain to be resolved on the Northern Sea Route (NSR) running along the Russian Arctic coastline, although the key issue in the NSR is related to Russian management of the route.

These maritime issues arise in the context of the United Nations Convention on the Law of the Sea (UNCLOS). Drastic environmental changes and increased opportunity for activity in the Arctic have meant that the UNCLOS, as the legitimate global maritime regime, has become increasingly relevant also in the Arctic region. The UNCLOS divides the world's seas into different zones, including internal waters, territorial seas and the Exclusive Economic Zones (EEZs), all with different levels of sovereignty and navigation rights. The NWP in its entirety and the

NSR in parts pass through areas that are under the direct jurisdiction of Canada and Russia respectively. No one is contesting Canadian or Russian sovereignty over their maritime areas. Instead, the disputes are about the interpretation of the UNCLOS.

According to the UNCLOS, foreign ships and aircraft are allowed freedom of movement through any nation's territorial sea and EEZ, and through straits used for international navigation. At the North-West Passage, the key issue is the status of the passage: whether the NWP should be seen as internal waters where Canada has complete jurisdiction, or whether it should be seen as an international strait which, according to the UNCLOS, should be open to free maritime passage. The US, in particular, has a stake in this issue, and wants to avoid establishing an unfavourable legal precedent in the NWP that might hinder the free flow of global trade or jeopardize the free movement of the US Navy in other parts of the world.

The status of the Northern Sea Route is potentially a more relevant maritime issue as it is expected to become a significant intercontinental transport artery more rapidly. At the NSR, the key issue is the legitimacy of Russian regulation of the route. For the most part, the NSR runs through the Russian EEZ and only passes, at certain points, through Russian internal waters. Russia has nevertheless enacted Article 234 of the UNCLOS related to the possibility that a coastal state may apply special environmental protection requirements within its EEZ in "ice-covered waters" to control the use of the NSR, and has required up until recently mandatory icebreaker escort from the Russian breaker fleet for any ship operating on the route.<sup>46</sup> This has caused global concern, most notably in Asian maritime nations and particularly in China, since high fees for icebreaker services may diminish the potential commercial advantage of the route.

The third endogenous conflict potential stems from unsettled demands concerning the demarcation of the continental shelves under the Arctic Ocean. This is potentially the most significant intra-Arctic source of conflict and flow disruption given the expected hydrocarbon deposits on the Arctic seabed. This issue also arises in the context of the UNCLOS. According to the treaty, coastal states have sovereign economic rights to the water column and seabed resources in their

46 NSR navigational rules were reformed in 2013. The new rules make procedures and requirements more flexible. For instance, icebreaker escort, on-board pilot, and ship's ice class are no longer mandatory, but the criterion is based on season, NSR area and actual ice conditions. For more information, see e.g. ABS (2013) and NSRA (2014).

200-nautical-mile (nm) EEZ. Beyond that, the UNCLOS (Article 76; Annex II) allows for coastal states to seek an extension to their EEZs up to 350 nm through a formal submission to the United Nations Commission on the Limits of the Continental Shelf (CLCS).<sup>47</sup> The CLCS confirms these claims if the scientific data are sufficient to justify that the extended EEZ correlates with the “natural” extension of the coastal state’s continental shelf. In these extended EEZs, coastal states enjoy sovereign rights to the seabed resources, but not to the water column resources, which are part of the high seas without national jurisdiction. After a particular state has ratified the UNCLOS, it has a ten-year timeframe to submit its claims for the extended EEZ to the CLCS. A negative decision by the CLCS, however, is not final, and the state may proceed with collecting additional scientific data to further back up its claim.

What is perhaps the most important issue related to CLCS rulings in the Arctic remains to be settled. This concerns the Russian 2001 claim over the Lomonosov Ridge splitting the Arctic Ocean, which was initially rejected and delayed due to lack of sufficient scientific data. Since then, Russia has engaged in a geological survey and is expected to submit a revised claim to the CLCS by the end of 2013. In addition to Russia, Canada and Denmark also argue that the Lomonosov Ridge is a natural extension of their continental shelf and they have submitted, or are preparing to submit, their claims to the CLCS.<sup>48</sup> The fact that these delimitation claims overlap is often seen to indicate some kind of ownership battle between Arctic coastal states, potentially leading to diplomatic disputes or even to the use of hard power as a way of securing the claim to one’s “own” continental shelf.

In addition to these substantive considerations, there are also more implicit procedural challenges related to the extension of EEZs that have the potential to further engender conflict dynamics. First, there are timeframe issues that make the process unpredictable. Not only have certain states encountered difficulties in following the 10-year window for an application, but it is also possible for states to make new and revised submissions to the CLCS, thus delaying a definitive decision on continental shelf extensions. Secondly, the CLCS has a weak legal mandate. Its decisions are not legally binding rulings; they are only recommendatory in nature, and thus the CLCS

47 UNCLOS, Article 76; Annex II.

48 For more details on submission, see [http://www.un.org/depts/los/clcs\\_new/commission\\_submissions.htm](http://www.un.org/depts/los/clcs_new/commission_submissions.htm).

lacks the mandate and ultimate authority to settle boundary disputes between states. States have to accept the CLCS recommendation in order for it to become final. This makes the ultimate settlement a political matter. In a dispute situation, states are obliged primarily to negotiate a solution by themselves, but they may also subject their claims to international arbitration, for example to the International Tribunal for the Law of the Sea or the International Court of Justice. Thirdly, the CLCS also has problems related to the transparency of the process. The Commission does not need to publicly justify its decision, nor does the coastal state have to make the scientific data behind its claim public. And finally, the UNCLOS also has definitional ambiguities. For example, ambiguity about the notion of “continental shelf” gives scope for different interpretations about the national extensions of EEZs (Hart et al. 2012, 11).

These procedural weaknesses may decrease the legitimacy of any CLCS ruling, especially if the ruling is unwelcomed by a coastal state. Overall, they increase the possibility of misunderstandings, disputes and overlapping claims. A failure in the UN process to settle the issues – whether due to a substantive disagreement or a procedural challenge – might pose a serious setback for the Arctic development and could have the potential to shift this development towards more conflictual dynamics that would then hinder the transformation of the region into an important element of transnational hub-and-spoke structures (e.g. energy and trade) and endanger it as a stable space of flows.

#### 5.5.2

##### *Arctic conflict potential defused: Towards a steady hum of flows?*

These intra-Arctic challenges exist and need to be addressed. If they are not settled through bi- and multilateral processes, the Arctic cooperation might be jeopardized and the potential for a stable space of flows and flow activity lost. However, there are several reasons why the indigenous Arctic inter-state conflict potential should not be exaggerated. These are highlighted below.

First and foremost, while there will be intensifying economic competition among major corporations, Arctic states have little to gain by letting the Arctic dynamics slip into a conflict situation that would create an unfruitful investment and development environment for Arctic exploitation. Of course, misperceptions and miscalculations are always possible, but for the most part the region’s dynamics are increasingly steered by this economic logic.

Secondly, there is not that much to fight over, and even given the amount that exists, Arctic conditions are not conducive to easy exploitation. While there are certain unresolved ownership issues in the region, the Arctic is not reducible to the Arctic Ocean. A large part of the region consists of land areas above the Arctic Circle that are under the uncontested sovereignty of the Arctic states, with national bodies of legislation to govern their respective areas. Furthermore, in the maritime Arctic, the existing 200-nm EEZs from the coastline to the Arctic Basin are to a large extent uncontested and well-defined (Young 2009, 77). It is estimated that around 85-90% of undiscovered hydrocarbon reserves are within these undisputed EEZs of Arctic nations (Hart et al. 2012, 7). The existence of legitimate sovereign authority over these uncontested areas downplays the notion of the Arctic as a *terra nullius*, claimable by anyone.

Nevertheless, there remains a disputed and undivided geographical area around the North Pole with potential hydrocarbon resources. However, the operating environment around the North Pole is multi-dimensionally harsh, making hydrocarbon exploitation there highly difficult and expensive. As a result, the economic potential of the area is extremely difficult to realize and Arctic hydrocarbon exploitation is likely to happen within the limits of the EEZs in the foreseeable future (Young 2009, 75). This makes heated disputes related to the hydrocarbon exploitation in this distant area highly unlikely – at least in the mid-term future. Unregulated fishing in the Arctic high seas may be a more probable source of conflict between Arctic states and stakeholders.

Thirdly, the Arctic area is not a governance void. The agenda of issues in Arctic governance is manifold, ranging from environmental protection and indigenous people all the way to economic and even military activities. This range of issues does not fall under the mandate of any single governance structure or organization, but is dealt with instead through multiple mechanisms. As such, contemporary Arctic governance does not constitute an integrated system. So far, Arctic governance and cooperation mechanisms have been evolving incrementally in situations where sectoral and practical issues have required some kind of governance solution and structure. As a result, Arctic governance has emerged as a fragmented and sectoral mosaic of national, regional, international and global governance arrangements, standards, laws, and treaties (Humrich and Wolf 2012, ii).



In this situation, some actors have stressed the need for an Arctic Treaty, a comprehensive and definitive legal regime similar to the Antarctic Treaty System, to demilitarize the Arctic region and protect its environment. However, this is unfeasible given the obvious differences between the Antarctic and the Arctic. Whereas the Antarctic is an unpopulated continent surrounded by an ocean, the Arctic consists of an ocean surrounded by populated continents. As such, the Arctic area is under the direct jurisdiction and ownership of various sovereign countries. Consequently, all Arctic states have emphasized that there is no need for a comprehensive Arctic Treaty, and that existing national and regional governance structures are adequate. In short, there is no political impetus to generate a new comprehensive pan-Arctic regime.

Moreover, the UNCLOS treaty provides a complementary multilateral legal framework for settling intra-Arctic sovereignty issues regarding maritime routes and continental shelf extensions. While the UNCLOS remains unproven in the Arctic and is plagued by some procedural ambiguities, there seems to be an overall agreement that the treaty and its procedures remain adequate for Arctic conflict resolution. In fact, when compared to the situation in the South China Sea, which shares similar dynamics (hydrocarbon resources, undefined boundaries, major power interests), the Arctic states have been remarkably successful in combining national interests and peaceful cooperation. The Arctic states have committed themselves to settling their maritime border disputes via the UNCLOS processes, most recently in the Arctic Council's 2013 Kiruna ministerial meeting. All Arctic rim states, with the exception of the US, have ratified the UNCLOS treaty, but even the US has affirmed its de facto commitment to the Law of the Seas on several occasions. These statements are important illustrations of the cooperative nature of Arctic dynamics.

Importantly, however, it is worth remembering that the treaty has not been tested in earnest in the Arctic. The recent diplomatic dispute between the Netherlands and Russia over the capture of the Greenpeace ship *Arctic Sunrise* in the Pechora Sea might be read as such a test, where some of the actual limitations and handicaps of the UNCLOS as a conflict arbitration mechanism surfaced. For example, while the *Arctic Sunrise* did illegally enter Russian sovereign space near the Prirazlomnoye oil platform, Russia's questionable arrest of the ship in its EEZ in the absence of "hot pursuit" – thus effectively constituting a violation of the freedom of navigation – and its unwillingness to

accept UNCLOS arbitration mechanisms in this case raise some doubts over Russia's consistent commitment to the UNCLOS treaty.

Of course, the UNCLOS is not the only international framework governing the Arctic. A good example of more sectoral multilateral governance is the work of the International Maritime Organization (IMO). One important element in maintaining mutual trust in the Arctic is the mitigation of the possibility of a major environmental accident. Indeed, as economic activities in the Arctic multiply, the likelihood of a major environmental incident increases. A major accident would not only hinder the economic development of the area, but could also feed political mistrust between the Arctic stakeholders, for example in the case of inability or reluctance to respond adequately to the situation. The IMO has a key role to play in making risky Arctic shipping safer. Currently, the organization is preparing a mandatory "Polar Code"<sup>49</sup> for Arctic shipping. This new safety regime will regulate the design, construction and use of vessels in Arctic waters, and will most likely have a positive impact on the possibility of the Arctic maritime passages becoming important global transport routes. That said, even if the Arctic shipping industry becomes more regulated and standardized, and hence increasingly "safe", the increase in activity will nevertheless increase the overall risk of an accident, whatever the regulation.

Finally, while competition exists, Arctic states have expressed their interest in international cooperation and have backed this up with high-profile confidence-building measures. Most notably, this was the case after the famous 2007 Russian flag-planting stunt at the North Pole, which was not followed by intensified competition, but rather by measures that sought to demystify and defuse the situation – including the 2008 Ilulissat Declaration by the five Arctic littoral states. To reinforce this trend, Arctic states' Chiefs of Defence have begun to meet biannually, and there are also annual Arctic military exercises between Norway (NATO member) and Russia. There are also biannual cross-boundary emergency exercises in the region by various national authorities. While certain Arctic states (e.g. Norway, Russia, Canada) have increased their military presence and capability in the Arctic, there is widespread agreement that Arctic states are primarily interested in monitoring and governing the opening area and their respective sovereignties in the region (or, in the case of Russia, also re-establishing its global presence).

49 See <http://www.imo.org/MediaCentre/HotTopics/polar/Pages/default.aspx>.

As such, there is little indication of a hostile re-militarization of the Arctic (Lasserre 2012; Wezeman 2012).<sup>50</sup>

All Arctic states have also produced remarkably convergent Arctic strategies and policies that emphasize the need for cooperation in Arctic issues. Moreover, all Arctic Council member states, as well as its permanent observers, have endorsed Arctic multilateralism. Most recently, the Arctic Council's Kiruna Declaration reinforced the status of the Council as the leading forum for international cooperation in the Arctic. Of course, official policy statements may only pay lip service to cooperation and downplay actual points of friction, for example with regard to differing economic or security policy interests. That said, the Arctic cooperation discourse continues to shape the common sense and political imaginaries of Arctic governance towards interstate peace and cooperation.

It is also important to note that while both circumpolar (Arctic Council) and regional (Barents Euro-Arctic Council, Nordic Council, Baltic Sea Council) frameworks are important in Arctic governance and cooperation, they are not the only platforms where the Arctic states interact. Various international forums play a role, too. All Arctic nations are OSCE members, while some belong to NATO and others to the EU. Participation in these frameworks may involve crippling policy competition and power politics, but it can also foster an important confidence-building element between actors. In any case, international forums are important platforms for addressing international issues that have – for better or worse – implications for the Arctic area (such as military and security policy issues). Of course, it is the role of NATO in Arctic cooperation that is especially problematic due to Russian antipathy towards the organization in general, and in Arctic governance in particular. For the time being, NATO has decided not

50 Recent events in Ukraine may have an impact on Arctic co-operation. For example, speaking in the context of the Crimean crisis, former US Secretary of State Hillary Clinton has criticized Russia's reopening of old Soviet military bases in the Arctic, which according to her threatens to militarize the region. Iceland's Prime Minister, Sigmundur Gunnlaugsson, has also stated that Russia's actions in Ukraine will have a ripple effect and could cause problems for Arctic cooperation. A more direct and tangibly crippling effect of the crisis vis-à-vis the Arctic is the cancellation of the Northern Eagle naval exercise between the Norwegian, Russian and US navies. The event was called off after the US announced that it would be cancelling its participation as a result of the events in Ukraine. The military cooperation between Russia and NATO countries, such as Norway and the US, has been one distinctive and exceptional Arctic feature (Mikkola 2014).

to increase its current presence in the region, and in so doing, has fostered a cooperative atmosphere for its part (Wilson 2014).<sup>51</sup>

The Arctic has also seen the birth of various bilateral agreements on several issues and in several sectors. Most notably, Norway and Russia managed to resolve their longstanding border dispute in the 2010 delimitation treaty on the disputed maritime area in the Barents Sea, which can now be utilized for hydrocarbon extraction. Somewhat similarly, while the US and Canada do not agree on the status of the NWP, the 1998 US-Canadian agreement has nevertheless stabilized the situation and mitigated the tension at the passage. In the agreement, the US agreed not to send ships through the NWP without Canada's consent, while Canada promised to always grant that consent. Many of the Arctic agreements are precisely like this: "unofficial" deals where actors "agree to disagree" in order to be able to make a practical compromise that enables them to develop or utilize a particular resource without losing their sovereignty or prestige – even if the dispute remains officially unsettled (Hříž and Chrástanský 2012, 123–124, 131).

## 5.6

### ARCTIC ECONOMIC POTENTIAL AND FLOWS: KEY CHALLENGES

The Arctic is often regarded as an economically exciting, some might say sexy, region of riches with significant prospects in various sectors of economic activity, but especially so in the extraction of hydrocarbons, and maritime transport (not least because they are partly interwoven). As one influential Arctic scholar has recently put it, global warming "is turning what has traditionally been an impassible body of water ringed by remote wilderness into something dramatically different: an emerging epicenter of industry and trade akin to the Mediterranean Sea" (Borgerson 2013).

There are, of course, alternative views on the issue. More critical scholars argue that many contemporary analyses of the Arctic "are somehow at odds with Arctic reality given that we still have not seen

51 This position was re-iterated in May 2013 by Anders Fogh Rasmussen, NATO Secretary-General, who stated that "[a]t this present time, NATO has no intention of raising its presence and activities in the High North". Norway, in particular, has been trying to persuade NATO to establish a stronger military presence in the Arctic, and especially in the High North.

the tremendous economic Arctic coming-of-age that so many have been forecasting over the last few years” (Keil 2013). Instead, recent developments in Arctic energy development, maritime shipping, and even fishery point towards the conclusion that “there is little reason to expect huge short- to mid-term benefits [...]. While perhaps some benefits can be expected locally and nationally, the picture of an Arctic as ‘prime real estate’ of global significance is exaggerated” (ibid.).

While the public image of the Arctic is often overly “sexed up” and “hyped”, both in the media and among policy-makers, it is clear that the Arctic area is changing, not only environmentally but also economically (and geopolitically, as discussed above). That said, the Arctic trajectories remain uncertain and a comprehensive understanding of these change dynamics is still in many respects limited. For instance, while there is huge potential for economic opportunity in the Arctic, it is not at all clear *how* – to what extent and at what pace – this potentiality will indeed actualize.

To shed light on this *problematique*, the next section of this report will critically analyze the key drivers of the contemporary “Arctic boom” and illustrate existing key challenges that need to be both acknowledged and tackled for the Arctic economic and logistic flows to become economically viable, more intense and more regular. This is achieved by providing an overview of the challenges in two main economic domains of the Arctic: maritime transport and hydrocarbon extraction.

#### 5.6.1

##### *Maritime transport flows*

In principle, Arctic sea routes could offer substantial savings in logistics between Asian, American and European markets when compared to the current global maritime trade routes via the Panama and Suez Canals. For example, the travel time between Rotterdam and Shanghai may be reduced from an average 30 days down to 14 days, and the distance by roughly 5,000 kilometres when compared to the traditional trading route via the Suez Canal (Hahl 2013, 3). This, in addition to the political instability in many geographical areas (e.g. the Strait of Hormuz, the Horn of Africa) in the near vicinity of the traditional global maritime flows, is often seen to make the opening Arctic maritime routes a more appealing option for commercial operators.

Although the Arctic Routes have witnessed an increase in traffic during the last five years, especially in the maritime corridor along

the Russian coast (NSR), easier access to the Arctic passages will not inevitably result in trans-Arctic trade flows becoming a major competitor for the more “traditional” trading routes. There are tough challenges to tackle before the maritime passages in the High North become globally significant. This is due to multi-dimensionally harsh operating conditions in the Arctic, which make Arctic maritime operations challenging and costly. In addition to the cold climate and physical obstacles generated by ice, Arctic waters are also considerably shallow due to broad continental shelves. For example, the depth of the NEP varies between 10 and 100 metres, which is considerably less than on other major transport routes (e.g. AMSA 2009, 23). This geographical fact alone puts limitations on the size of vessels capable of operating on Arctic routes. Smaller vessels mean smaller cargo-carrying capability, which in turn means sub-optimal economies of scale and high logistic unit costs.<sup>52</sup> The cold Arctic climate also puts extra stress on a ship’s machinery and operability,<sup>53</sup> and limits the products suitable for containership transportation in the first place.

In addition, melting ice will result in a larger quantity of drifting ice, making the operating conditions dangerous. This is especially hazardous during the dark Arctic winter nights, which prevail for half the year. Moreover, the Arctic area is still an “unknown frontier” in many respects. Current hydrographic charts, for example, remain inadequate for safe maritime activity (AMSA 2009, 16).

This hazardous environment means that ships navigating Arctic waters must be adequately reinforced to be able to operate safely, making them more expensive to build and also economically less beneficial to operate in waters other than the Arctic Ocean, due to heavier vessel weight, for example. A significant increase in Arctic traffic would require a correspondingly significant increase in ice-strengthened *Polar Class*<sup>54</sup> carrier vessels or, alternatively, Arctic vessels would need to count on icebreakers for navigational and ice-management assistance, even during the summer season. This would put limitations on the use of the Arctic passages because of the scarce icebreaking capabilities and relatively high ice-management

52 Moreover, future trends indicate growth in ship size and tonnages, which further questions the feasibility of Arctic maritime flows. See Humpert (2013, 14–15).

53 For an informative discussion of the challenges facing surface warships operating at high latitudes, see e.g. Kraska (2011).

54 On the Polar Class requirements by the International Association of Classification Societies, see [http://www.iacs.org.uk/document/public/Publications/Unified\\_requirements/PDF/UR\\_1\\_.pdf](http://www.iacs.org.uk/document/public/Publications/Unified_requirements/PDF/UR_1_.pdf)410.pdf.

fees. For instance, the icebreaker escort cost at the NSR can amount to \$150,000 per day. One must also note that building a modern icebreaker is highly expensive (up to \$1bn) and time-consuming (up to 10 years) (Lloyd's 2012, 29).

Importantly, even though the Arctic Ocean might be reasonably ice-free during a few summer months, the Arctic *winter ice* is not expected to disappear – at least not during this century. This means that Arctic shipping, even at the NSR, is not going to be possible all year round, other than with ice-strengthened *Polar Class* ships and/or with icebreaker assistance.<sup>55</sup> This means that year-round transport in the prevailing conditions is not economically feasible and Arctic maritime activities will remain highly seasonal. Moreover, it's extremely difficult to predict when the passages will actually be open since the ice coverage varies from year to year (AMSA 2009, 160, 24–25). While the long-term trend is clearly a decreasing one, the extent of summer ice actually increased in 2012 when compared to the previous year. Importantly, the unpredictable nature of the Arctic operational environment means that the Arctic routes may not be suitable for so-called “just-in-time logistics” – a common feature of today's global supply chains. Instead, the Arctic routes have the biggest potential in the transportation of bulk cargo (resources, e.g. minerals and LNG) as opposed to containers that require punctuality in delivery (Brigham 2011, 29).

The Arctic also has severe gaps in the infrastructure necessary for safe passage. Arctic routes continue to lack search and rescue (SAR) capabilities, ice-management capabilities, salvage points, harbours, communication infrastructure and even experienced staff to operate in icy waters – despite recent international agreements (binding treaties on SAR and oil spill response under the auspices of the AC) and advances in national capability (e.g. NSR Administration and first SAR centres in Russia) (ibid., p. 27) Arctic-specific insurance is also limited by the relatively low amount of traffic, and insurance premiums may remain high due to difficult operating conditions and levels of risk management by shipping companies (Lloyd's 2012, 49–51). What this means is that while the Arctic routes are shorter in distance and more and more frequently used, their feasibility and lucrativeness remain uncertain, at least in the near future. In some cases, they might be slower due to unexpected ice conditions, or entail larger fuel costs due

55 Russia no longer requires a mandatory icebreaker escort for maritime transport in the NEP.

to the need for greater propulsion power.<sup>56</sup> In short, the potential in Arctic transport routes might be difficult to realize in full.

Traditionally, the Arctic has seen a certain amount of maritime activity. These activities, however, have been mostly regional and related to the re-supply of communities in the scarcely populated Arctic area and the exploitation and export of natural resources (oil, gas, minerals, fish) out of the Arctic. The majority of these intra-Arctic transport activities have taken place along the Norwegian coast, around Iceland, Greenland and the Faroe Islands, and in the Bering and Barents Seas, the latter having the largest concentration of Arctic maritime traffic (AMSA 2009, 73–74). These activities have taken place almost entirely in areas which are already ice-free, either seasonally or year round.

Despite optimistic strategic visions (e.g. Barents Observer 2013a) as well as some notable commercial trans-Arctic passages since 2009 (e.g. Brigham 2013, 14), there is no guarantee that trans-Arctic shipping activity will boom in the near future. That said, Arctic maritime activities will increase along with the rise in economic activities in the region, primarily related to energy export, mining, tourism and the fishing industry. The Northern Sea Route (NSR), or parts of it, along the Russian coast has the greatest potential for commercial and therefore operational activity as well. With the world's most powerful (albeit limited) ice-breaking fleet and long historical experience in Arctic conditions, Russia would gain from the suggested increase in NSR use. Russia has stated its vision to comprehensively develop its Arctic capabilities and infrastructure, especially in order to secure its energy exports: a major part of Russian export income comes from hydrocarbons. As mentioned, the Arctic area plays an important role in this since it generates around 20 per cent of the country's gross domestic product (GDP) and twenty-five per cent of the nation's total exports (Zysk 2011b, 95; Järvenpää and Ries 2011, 138). This makes the Arctic a strategic imperative for Russia. In this respect, the NSR is a viable alternative for transporting liquefied natural gas (LNG) and other resources to Europe and Asia in the future. That said, the potential for LNG "swapping" may complicate this as commitments to export Arctic LNG to Asian markets (e.g. to China) can be met by alternative sources (e.g. Qatar) and routes (the Malacca Strait), while the actual Arctic LNG can be exported elsewhere in search of profit.

56 However, the travel speed in ice-free conditions in Arctic passages is typically slower than in other seas due to geographical reasons, a fact that might actually save on fuel costs.



To conclude, considerable investment in Arctic capabilities and infrastructure will be needed, as well as major changes in the security and economic rationale of “traditional” global trade dynamics, before the Arctic maritime routes become a significant option for global maritime trade flows. However, it is likely that increasing economic activities in the High North will increase Arctic maritime flows, but to a large extent only in certain key regions (e.g. North-West Russia) in the foreseeable future. In fact, figures from 2013 seem to corroborate this claim. Even though the newly founded Northern Sea Route Administration in Moscow had, by the end of August, granted almost 500 permits to use the route – almost 450 permits more than the 46 granted in 2012 – most of them are actually for regional as opposed to trans-Arctic transport, primarily in the western part of the route (i.e. in North-West Russia). During the 2013 sailing season, the NSR administration reported 71 trans-Arctic transit passages.<sup>57</sup> These figures pale in comparison not only with the transport flows along the more traditional routes, such as the Suez Canal, which sees the passage of up to 18,000 ships each year, but also with the amounts of shipping in the NSR itself in the past. In terms of volume, the 2012 figure amounted to only 60 per cent of the maximum 6.7 million tonnes in 1987 (Klimenko 2013).

Moreover, if changes in the world market logic shift manufacturing south of Hong Kong in 20 years when production costs in China, for example, have risen too high, let alone if production is insourced back to Europe or North America due to technological advances (e.g. 3D printing) or viable domestic energy (unconventional gas and oil), the Arctic maritime routes might lose much of their economic viability, as trade flows would not require or benefit from the northern route. For example, goods manufactured south of Hong Kong would likely flow via the southern maritime routes, which are not only shorter but more dense with potential markets. Yet China may be exemplary in another way: Chinese resource interests are primarily along the southern maritime corridor or in the southern hemisphere (Humpert 2013). For example, basically all of China’s current maritime LNG import flows derive from Australia, Qatar, Malaysia, and Indonesia (Nan and Anker 2012, 13–14). Even with the recent commitment to start importing LNG from the Yamal peninsula in the future, this significant non-Arctic emphasis in Chinese LNG policy indicates that the demand for Arctic maritime transport (in China) might remain

57 For details, see [http://www.arctic-llo.com/docs/nsr/transits/Transits\\_2013\\_30Sept.pdf](http://www.arctic-llo.com/docs/nsr/transits/Transits_2013_30Sept.pdf).

relatively low also in the future. In any event, trans-Arctic transport is more of a possibility for tomorrow than a reality of today.

### 5.6.2

#### *Natural resource exploitation*

Arctic energy exploitation is typically expected to offer significant economic prospects for major producers of energy. But, as was the case with maritime transport, the potential for Arctic energy exploitation is not easy to cash in on. There are several, often intertwined, reasons for this, and the bottom line is that implementing oil and gas development projects in the Arctic is complex. To begin with, their feasibility depends to a large extent on the global supply and demand dynamics, namely on the energy price and security of supply considerations. An enlightening example of the contingency of Arctic energy exploitation is the case of the Shtokman gas field project. Situated in the Barents Sea, about 550 kilometres offshore, this Russian-led gas-field megaproject was initially designed to supply liquefied natural gas (LNG) to the US market. However, the project has been delayed, and perhaps even jeopardized, by various contingent factors, ranging from rifting icebergs and taxation issues in Russia to recent technological breakthroughs in shale gas extraction technology (e.g. *Wall Street Journal* 2012; Barents Observer 2013b). The increase in North-American shale gas exploitation has saturated the US gas markets – there is even talk of US energy independence by 2020 – and consequently blocked the export of Shtokman LNG to the US (Vihma 2013).

From an economic perspective, the basic principle is that the selling price must exceed a certain relatively high threshold for Arctic oil and gas extraction to be profitable. One estimate suggests that the cost of producing a barrel of Arctic oil is somewhere between \$35 and \$100, while the cost of producing a barrel of Middle-Eastern oil could be as low as \$5 (Lloyd's 2012, 23). The oil price in the global market has been – and is expected to remain – at a rather high level (currently \$94.53 (WTI) per barrel<sup>58</sup>), which makes Arctic oil development possible though less profitable and attractive due to the high production costs and low profit margins.

In contrast to oil, natural gas has traditionally been sourced and priced regionally. For instance, the price of natural gas in Japan is

58 The above-mentioned oil price is that of April 4, 2013.  
See <http://www.bloomberg.com/energy/>.

several times higher than in the US (IEA 2012, 2).<sup>59</sup> New developments in Arctic-related LNG tanker technology – for instance, double-hulled *Polar class* vessels capable of breaking ice stern first<sup>60</sup> – will make the transport of Arctic natural gas more independent of the existing pipelines, more flexible, and more global.

Arctic oil and natural gas extraction involves serious technical problems and requires huge investments, especially related to the offshore projects. Perhaps most importantly, actors in the energy sector have to mitigate the risk of environmental accidents. The Arctic environment is fragile and hard to restore in the event of accidents. Oil spill management in the icy environment of the Arctic is technologically difficult, if not nigh on impossible. The liability issues related to a potential environmental catastrophe pose major obstacles to resource extraction and hinder the development of potential projects. British Petroleum, for example, agreed to \$4.5bn in fines and other penalties related to a deep-water oil spill in the Gulf of Mexico in 2010. The total costs of the recovery will exceed this significantly (*NY Times* 2012).

Arctic development projects also tend to have long lead times, namely the time between the initial discovery and the actual production phase might be a decade or two long. This lead time might include unpredictable global or regional developments, such as changes in energy supply and demand, environmental accidents or political crises, which might have negative effects on the planned projects, either delaying them or resulting in them being cancelled altogether. As such, committing to these long-term development projects is difficult because of the great uncertainty surrounding the Arctic area development.

Economically speaking, there is a big difference between the economic viability of onshore and offshore drilling, and the proximity of the development projects to the existing infrastructure (harbours, pipelines) is a significant factor when pondering the economic viability of a project. Onshore or close-to-shore drilling near the existing infrastructure might be highly viable, but offshore projects require high global energy prices in order to be lucrative because of the high production and investment costs (Lloyd's 2012, 9). Moreover, it is worth noting that when the temperature rises and the Arctic permafrost melts, maintaining the existing infrastructure once

59 On natural gas pricing more generally, see e.g. Melling (2010).

60 On these "double acting" ships, see <http://www.akerarctic.fi/publications/pdf/Poac01XNEWBAS.pdf>.

built on the permafrost of the coastal areas may also need additional investments as the infrastructure's "bedrock" crumbles. In addition, reduced ice coverage brings with it stronger ocean waves which, in turn, pose difficulties not only to maritime traffic, but also to coastal infrastructure by increasing coastal erosion (Lloyd's 2012, 16-17).

All these practical factors – both in the maritime transport and the hydrocarbon exploitation sectors – do suggest that there are significant challenges that hinder the emergence of the Arctic as a space of flows, and especially of global flows.

## 5.7 FUTURE ARCTIC TRAJECTORIES

The Arctic is warming up, and as a consequence the region is gradually losing its ice cover – especially during the summer months. This has two well-known consequences: first, Arctic sea routes are becoming more easily accessible for maritime transport, and secondly, the melting Arctic is likely to reveal substantial new sources of hydrocarbons and minerals that can subsequently be transported via the opening maritime routes. The Arctic warming is a key enabler of the process by which the Arctic region is expected to emerge as an increasingly important space of flows of resources, goods, people, and possibly data in the future. This process is further facilitated by technological innovations in maritime transport, resource extraction, and communication. All this has meant that the geo-economic and geopolitical importance of the Arctic has been on the rise, and the region has emerged as a hot topic of contemporary global politics. As a result, the dynamics of the whole North-European – including Finnish – maritime environment are transforming and under debate.

This chapter investigated in more detail the emergence of the Arctic as a space of flows from the perspective of three key factors, above and beyond the Arctic climate change and the melting of its ice cover: Arctic geopolitics, Arctic conflict potential and Arctic economy, with a particular focus on challenges to economic development. Of these three, it is the *economy* that plays – and will continue to play – the key role in the Arctic. The major enabler of the region's transformation towards a space of global flows is, of course, the money to be made there, and the economic potential in the region is undoubtedly huge. Indicative of this, recent and relatively cautious estimates suggest that the Arctic area could witness investments ranging from \$100bn

(Lloyd's 2012, 6) up to €225bn (Synberg 2013, 5) during the next decade, mostly related to the exploitation of non-renewable energy sources and related infrastructure construction.

In a similar vein, and despite various challenges, Arctic maritime transport is also expected to increase due to the increasing hydrocarbon and mining activities, primarily within specific regions (e.g. North-West Russia) but also even trans-continently over time. This will probably offer substantial commercial possibilities for the energy industry, ship and infrastructure builders, and ice-management service providers. The Arctic area also offers mid-term prospects for renewable energy in the form of hydro, solar and wind power. Last, but certainly not least, the fishing industry as well as tourism are also likely to seek gains from the opening Arctic.

However, in many ways, the Arctic economic development is still difficult to forecast, even in the two major sectors of hydrocarbon extraction and maritime transport. The Arctic has many potential trajectories that may, or may not, be realized due to a number of uncertainties and challenges. These include at least the following factors:

- changes in future hydrocarbon demand and price
- developments in global trade dynamics
- the future of traditional maritime routes
- potential environmental catastrophes
- global effects of climate change
- technological development
- domestic or international political dynamics (e.g. vis-à-vis Russia, China)
- the future of Arctic multilateral governance
- the reduction of knowledge gaps (e.g. hydrographic mapping, weather forecasts)
- future infrastructure development
- trade-offs between different economic activities (e.g. fishing, tourism, oil, gas)
- development in operational and environmental risk mitigation.

Yet, it is vital to note that even if the Arctic economic prospects were not realized in full, there would still be substantial investments in(to) the region. This means that the Arctic will develop economically, even if the pace and extent of the economic developments are likely to remain moderate. This, in turn, is likely to result in gradually intensifying regional and – to some extent – also global flows in the area. Nevertheless, because of the above-mentioned factors, among others, the future of the Arctic remains uncertain and there is a need to engage

in a constant, comprehensive and risk-aware assessment of Arctic dynamics. This is especially the case nationally, in Finland, vis-à-vis realistic future investments and appropriate political engagement in the region. In other words, what is needed is a “de-hyped” evaluation of Arctic dynamics.

Secondly, as the Arctic is gradually transforming in economic terms, it is also re-emerging as a *geo-economically* important region. Although the pace and overall direction of the Arctic development is by no means clear, new economic prospects in the energy, mineral and maritime transport sectors offer significant opportunities for the traditional Arctic states, some of which are already active players in the region, such as Russia and Norway, while others are slowly turning their attention to the region, such as the US. New prospects are also attracting the attention of new players that are keen to tap into the economic potential and have a say in the way the region is accessed, exploited and governed, including China and the EU. Major multinational or nationally affiliated corporations are also increasingly keen to seek new opportunities (e.g. claims for future resource bases) in the opening Arctic. Growing strategic interest in the region is likely to facilitate, or at least support, the emergence of the Arctic as a space of flows.

The net effect of these – and other – developments is that the Arctic today is a global Arctic; it can no longer be perceived as a spatially or administratively confined region, but is instead taking on a new form and dynamics in the midst of contemporary global politics, economy and various related flows of resources, goods, people, and possibly even data in the future.

This globalization of the Arctic in combination with the new focus on the economy is likely to have various, additional political consequences in the region over time. Firstly, the focus on sustainable development in Arctic governance is likely to suffer from a sharper focus on the economy, which favours environmentally challenging but globally interesting hydrocarbon extraction and maritime transport industries. Secondly, the indigenous people in the Arctic will most likely lose influence with the introduction of new major players into Arctic governance. At the very least, it is unlikely that China, for example, would contribute to the enhancement of indigenous influence in Arctic affairs given its economic emphasis, interest in domestic stability, as well as its history with Chinese minorities. Thirdly, new actors, interests and dynamics are bound to affect the traditional Arctic states. In general, the emergence of major new players will reduce, albeit with exceptions, the influence of traditional and especially small Arctic

states. Yet, for some, the appearance of major new players may in fact be a boon. Iceland, for example, may stand to gain from increasing Chinese interest in the region by receiving direct foreign investments and other benefits after its economic crisis. In fact, more broadly, Iceland is attempting to leverage the emerging world of global flows by reinventing itself as a significant hub of maritime trade (transpolar route), cyber flows (transcontinental data cables, data centres), and potentially even energy flows (plans to export energy via pipelines to the UK). Last but not least, Arctic governance is likely to turn more complex and complicated as the economic and political stakes are raised with the introduction of new global players in the region.

The last key factor in our analysis of the Arctic as a space of flows is the region's *conflict potential*, namely whether the Arctic will be a steady riverbed for global flows or whether it will be marred by disputes or even interstate conflicts uncondusive to such flows. The increased geopolitical importance of the region does not necessarily indicate the increased possibility of a major inter-state conflict in the Arctic that would work against the possibility of global flows in the region. In short, the Arctic is not a new "wild west". While it provides strategic assets over which economic and political competition exists, and while there are unresolved and contentious issues in the globalizing Arctic (e.g. the status of maritime passages and the extension of continental shelves) that may spark diplomatic disputes, the Arctic remains one of the most peaceful areas on the globe, characterized to date by bilateral negotiations (e.g. Russia and Norway), multilateral co-operation and governance (e.g. UNCLOS, the Arctic Council) and public-private joint ventures (e.g. in hydrocarbon extraction).

To date, endogenous conflict dynamics among Arctic states have been defused by either bi- or multilateral cooperation, and they have been limited primarily to economic, legal and scientific argumentation. In order to ensure peaceful and cooperative dynamics in the region, governance mechanisms that are legitimate and confidence-building remain vital in managing intra-Arctic dynamics. That said, it is important to note that there are divergent political interests endorsing Arctic multilateralism and the spirit of cooperation. Russia, for example, utilizes multilateralism to create a stable investment environment, whereas China relies on it to legitimately access Arctic affairs as a non-aggressive rising power and extra-Arctic state. While a traditionally reluctant Arctic player, the US currently sees Arctic multilateralism as the most prominent tool to establish its presence and promote its interests in the region within the framework of its general smart power

strategy. The EU endorses multilateralism in its external policy – in general and in the Arctic – to present itself as a relevant global actor and a normative power in a situation where its global relevance is decreasing.

In any event, as a result of high incentives for stability in combination with relatively well-functioning Arctic governance, the potential for a major inter-state Arctic conflict due to endogenous sources is quite low and there is little reason to presume that this will change any time soon. While recognizing the political interests of various players, one must be careful not to “sex up” the intra-Arctic conflict potential in political imaginaries, as this might generate self-fulfilling prophecies and reinforce conflict dynamics.

Instead, in order to understand the Arctic today – even from the point of view of conflict potential and its consequences for the region as a space of flows – one needs to have a global perspective. The Arctic is not a closed system and regional development is increasingly intertwined with global dynamics. For example, the potential and economic viability of Arctic hydrocarbon exploitation is – and will remain – dependent on international energy prices and fluctuations in the global energy market, among other things due to breakthroughs in energy extraction technology (e.g. shale gas). Similarly, political events outside the Arctic may have direct effects on the dynamics in the region. In the war in Afghanistan, the US and Coalition military have been dependent on the supply routes that pass through Russian territory. This most likely means that the US, or NATO, has had no overwhelming desire to demonstrate an increasing presence in the Arctic, and challenge Russian interests in the region. Also, the future of cooperation or conflict between Russia and China is bound to affect the prospects of Arctic hydrocarbon and maritime transport activities.

In fact, if conflict was to surface in the Arctic, the most likely source would be extra-Arctic, stemming from dynamics outside the region. On the one hand, the forces of globalization and climate change manifest themselves in the contemporary Arctic as regional or local sub-state disputes. Now that the stakes are getting higher in the Arctic, the region has experienced – and is increasingly likely to experience – local disputes between economic/state and environmental actors, multinational companies and indigenous people, as well as difficult trade-offs between various economic sectors, such as hydrocarbon extraction and fishery. On the other hand, disputes between Arctic stakeholders over other issues and in other parts of the world might also spill over to the region. This latter exogenous source of conflict, in particular, remains elusive and hard to pinpoint in advance, but would



certainly involve complex global conflict dynamics and would require alternative conflict management strategies above and beyond existing Arctic governance structures.

However, by far the most significant exogenous source of potential conflict in the Arctic is global climate change. The so-called “Arctic boom” and the consequent Arctic global flows would become possible only in the context of a warming globe. At the same time, activities (e.g. hydrocarbon extraction, maritime transport) and changes (warming) in the Arctic itself feed into the environmental dynamics that further warm the globe. In short, Arctic dynamics are caught up in a vicious, paradoxical circle.<sup>61</sup> This means that the potential economic opportunities are hard – if not impossible – to reconcile with the goal of sustainable global socio-economic development.

While climate change has severe effects on the biosphere in the Arctic and elsewhere, it also produces a range of global security challenges by touching on various aspects of human security around the world. The most severe effects of climate change are expected to take place in regions that are already the most fragile and prone to crisis. Climate change is thus a “threat-multiplier” that accelerates the existing tensions and conflict dynamics, potentially producing so-called “poly-crisis” in which various crisis factors become nested.

The futuristic global scenario where the “Arctic boom” is going to take place will most likely include irreversible damage to the biosphere that results in more severe global competition between states and non-state actors over key resources, such as cultivable farmland, potable water, fish stocks and energy. It will most likely also entail serious damage to infrastructure in coastal cities due to an increase in sea levels. Climate change will also increase refugee flows and radicalization, especially in regions that suffer the most from its effects (see Figure 19).<sup>62</sup> These and other developments will most likely

61 This is sometimes defined as the “Arctic paradox”. According to Palosaari (2012, 24), the Arctic paradox is a moral dilemma in which “hydrocarbon use contributes to the climate warming, which makes the Arctic sea-ice melt and new oil and gas resources become available. Using those resources then further accelerates climate warming”.

62 For example, a recent document, *Global Risks 2013*, published by the World Economic Forum (2013, 18) argues that “[i]f the current mitigation commitments remain unmet, a global mean temperature increase of 4 degrees Celsius could occur as early as the 2060s. This would likely lead to negative impacts including an increase in the frequency of high-intensity tropical cyclones, inundation of coastal cities as sea levels rise, and increased drought severity in several regions. Together, the effects would not only mean significant economic losses but also mass displacement of populations, rising food insecurity and aggravated water scarcity”.

co-exist with systemic factors, such as economic and political inequality, poverty, lack of democracy, global economic disorder, and so on. If all this comes to pass, the tragedy of the Arctic seems to be that its economic potential will materialize only in the context of a deteriorating *and* conflictual globe.

### TEMPERATURE ABOVE PREINDUSTRIAL – IPCC SCENARIO A1B

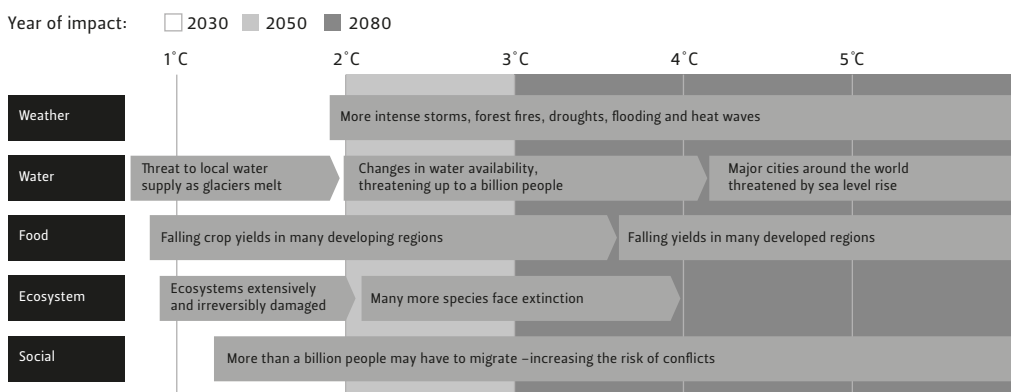


Figure 19: Potential impacts of global climate change on various sectors (Source: World Economic Forum 2013)

Furthermore, it is self-evident – though often overlooked – that the potential economic benefits reaped from the Arctic area pale in comparison with these severe, both human and economic, effects of global climate change. The recent economic costs of the Thailand floods (US\$ 30 billion) or Hurricane Katrina (US\$ 125 billion) are likely to represent a mere fraction of the total costs in the future (World Economic Forum 2013). Moreover, the world where the “Arctic boom” is expected to take place is likely to be very different from what it is today, and there is no reason to assume that, say, the global economy would function the way it does today. Thus, for example, it is not clear whether the demand for Arctic energy would be the same, or stronger, in this gloomy scenario. Similarly, it remains unclear whether Arctic shipping routes would be utilized to the full if the forces of the global economy moved cheap mass-market production south of Hong Kong or further.<sup>63</sup>

63 It is also possible to speculate whether and to what extent developments in the energy sector, such as the availability of unconventional domestic gas and oil in the US, or advances in technology, such as 3D printing, will affect the global economy and its value chains and flows.

The global goal should be to reduce greenhouse gas emissions, not to exploit and stay dependent on the fossil fuels that exacerbate global warming. This goal is in sharp contrast to the economic vision and rationale of the “Arctic boom” and Arctic global flows (e.g. LNG). In the end, the future of the Arctic may not be about the economic potential of a melting region. It may be about something much more profound than this. While the paradigm shift away from the “new Cold War” to “Arctic cooperation” has aptly captured the intra-Arctic economic reality – and is conducive to the idea of the Arctic as a potential space of global flows – there might be an increasing need for another paradigm shift. The next step for policy-makers and social scientists alike is to deepen and popularize the understanding of the Arctic as a part of complex, global dynamics. Whether this means an increase in power politics and exogenous conflict potential in the Arctic in the future remains an open question. But at the very least, in order to understand the region and its dynamics, one needs to increasingly look elsewhere.



6



## 6. Finnish national preparedness planning in the age of global flows

### 6.1

#### INTRODUCTION

The world has been shrinking rapidly during recent decades. Technological development has enabled growing, albeit unequally available, transnational interaction and circulations. This has resulted not only in accelerating speed of change, but also changes in contemporary geo-politics. This report has argued that traditional territorial geopolitics is transforming towards – and co-exists with – the geopolitics of flows, which highlights the growing importance of transnational networks of global flows that penetrate sovereign space and rely on extra-sovereign spaces, namely the global commons.

These undisturbed global flows are essential for the movement of people, information, finance, and goods across national borders. The report has argued that the global circulations and flows are increasingly challenging old policy solutions, most notably national self-reliance. Finland is a nation that is critically dependent on its external relations – economically, politically, culturally, and even militarily.

This chapter analyzes further, and in more detail, the implications of the growing importance of the geopolitics of flows for Finland. It starts by analyzing the popular metaphor of “Finland as an island” which, in a way, has been the starting premise for the perceived need to rethink and reconfigure the Finnish political imaginary in the first place. It is suggested that an alternative metaphor of “Finland as a connector” – as a bridge or a link – might provide evolutionary advantages in the world of global flows, where the very ability to

establish, maintain and secure connections is becoming tantamount to being a successful modern state.

Stemming from this analysis, the chapter proceeds to investigate the possibilities of national preparedness planning in the age of global flows. “Preparedness planning” refers here to the range of actions carried out by national authorities, often in co-operation with the private sector (e.g. civil society, commercial companies), to secure Finnish military security, the critical functions of Finnish society, and Finnish security of supply.

In this regard, we will first turn our attention to the implications of the “Finland as an island” paradigm vis-à-vis the Finnish security and defence policy and illustrate some of the ongoing changes regarding the paradigm, as well as the security and defence policy itself, including military security of supply. It is highlighted that (perceptions of) global interconnectedness and interdependency are increasingly affecting Finnish security and defence planning. Although Finland is officially a non-aligned country, its national defence has essential international enablers, without which credible national defence capability is seen to be impossible to maintain.

After that, the chapter will go on to investigate in more detail the transforming approach to overall security of supply in Finland. The report argues that understanding (geo)political changes in the framework of global and regional interconnectedness and interdependency is likely to become vital for overall national security, including the security of supply. For example, the emphasis on global flows –and their potential insecurity – will have implications for the security of supply in the energy, resource, information and logistic sectors around the world. As Finland is likely to be increasingly dependent on global flows of goods, finance, and ideas, autonomous and self-sufficient national preparedness, and especially security of supply actions by national authorities, are considered to be increasingly difficult. This has resulted in the emergence of a new paradigm for security of supply that foregrounds the ideas of complex continuity management and national resilience.

The chapter will conclude with a reflection on some of the key aspects of future security of supply planning for a small state like Finland. It is suggested that security of supply planning requires an increasingly holistic approach that takes into consideration a range of technical, political and politico-strategic aspects – both domestically and internationally – that are likely to affect the future security of supply.



6.2  
BEYOND “FINLAND AS AN ISLAND”:  
A TRANSFORMING NATIONAL MINDSET

In a speech in Helsinki on 31 August, 2007, the Secretary-General of the International Maritime Organization, E. Mitropoulos, stated that “[t]here is an old saying that ‘Finland is an island’, a statement that bears testimony to its extensive coastline, islands and inland waters, the outward-looking attitude of its people and their strong affinity with the sea, navigation and with all things maritime”.<sup>64</sup> The speech repeated an often-cited paradigm in the Finnish political imaginary: *Finland as an island*.

This paradigm requires some elaboration since it reveals many characteristics of the Finnish sense of global interconnectedness, preparedness planning and security of supply. It is also a telltale sign of an influential Finnish mindset that has traditionally emphasized isolation, self-reliance, and safe haven images in a world where such conceptual tools do not produce any added value and, conversely, might cause much harm.

Being integrated into the global flows poses both threats and opportunities. The growing recognition of the lowering boundaries is paralleled by growing anxieties and fears of possible bad influences and cross-border threats. In this conceptual landscape, the state is seen as both more irrelevant yet paradoxically more significant. When it comes to people’s identities, states are perceived as islands of order and power in the confusing sea of globalization. Disappearing physical barriers have led to a situation in which human interaction across vast distances occurs almost anywhere and everywhere in the world (Scholte 1996). It is likely that the feverish agitations of the globalizing world will increase the likelihood of age-old narrative tracks being triggered, which emphasize the negative effects of motilities and boundary transgressions – for example in the form of unwanted migration or human trafficking. From this perspective, it is understandable that there is a considerable degree of anxiety and fear, which arises when long-existing borders start to become increasingly porous, and when the compressed global space decreases the importance and even the possibility of buffering geographical distance.

The “globalized” community can no longer be described convincingly as an archipelago of separate national safe havens. Much

64 See [http://www.imo.org/blast/mainframe.asp?topic\\_id=1534&doc\\_id=8455](http://www.imo.org/blast/mainframe.asp?topic_id=1534&doc_id=8455).

hybridization and multidimensional nesting has taken place at the level of identities and communities because new methods of global interconnectedness have expanded social spaces beyond geopolitically identifiable locations. However, this hybridization is taking place in a world with still-strong local – often xenophobic and non-transnationalistic – identities. This changing ideological landscape is ripe for the markers of insecurity to turn into signifiers of fears and frights in ways that may reflect older patterns of enmity.

In the cross-currents between nostalgia for the past, runaway globalization, and the deep disjunctive effects, societies may turn into paranoid sites where threats and fears, however unsubstantiated, easily go viral and create their own senses of reality (Loosemore et al. 2006). These situations can lead to sudden senses of shock or fright even in the absence of any concrete evidence. The risk societies are becoming risk-averse. The potentialities of emergencies and catastrophes are treated as almost real, and the worst-case scenarios are treated as possible.

The idea that Finland – or any state – is an island has a long conceptual history, and the cognitive content of the metaphor is not limited to the more obvious cases of maritime logistics or critical infrastructure that characterize it today. The idea has broader conceptual foundations in the history of Western political thought, which warrant closer examination. As a case in point, Donelan (1978, 78–79) critically summarizes the age-old line of thought which perceives the space external to a state as “a wasteland” of war, and of “Disease, Famine and Beasts”. The widely influential imagery postulates a world in which “the separate states of the world are islands in a sea of evil”. This imagery found its way into contemporary political thought through the sea, water, and vortex conceptualizations that Thomas Hobbes inherited from ancient Greek thinkers, especially Thucydides. Plato in his *Statesman* uses the concept related to unlikeness in the form of a “sea of diversity”,<sup>65</sup> a place of unlimited chaos where the voice of reason – *Logismo* – is faint and difficult to discern. Later, this Platonic notion transformed into, or at least influenced, Augustine’s influential conceptualization of a “region of dissimilitude”. The importance of dissimilitude as an early template for the “state of nature” and, ultimately, for “international anarchy” becomes clearer through the way in which Augustine describes the region of dissimilitude as characterized not only by lust for domination, but also by profound discontinuity, indeterminateness,

65 Harold N. Fowler in the Harvard edition uses “boundless sea of diversity”.  
See also Dahlberg (1988, 27–28).

and haphazardness of communication (Brown 1965, 3). The general idea is that an orderly collection of things – namely the polis or state – should be brought about.

This intellectual history behind the notion of “a state as an island” or “states as an archipelago in a sea of anarchy” provides substance to the scenario that Finland is an island. Parallel to the international influences, the slogan has clear Finnish foundations as well. The most intuitively appealing place to gain insight into imageries is through art, and especially the art that has been used in conjunction with foreign policy, such as illustrations, emblems, or cover art (Aaltola 2003, 48–71). By way of an example, Vilho Harle and Sami Moisio (2000) place the famous painting by Eetu Isto, “*The Attack*”, from the formative year 1899, on the cover of their book about Finnish geopolitical identity (Figure 20). The painting portrays Finland – namely the Maiden Finland – threatened by Russia’s monstrous double-headed eagle. The eagle is trying to take away the rule of law – in other words, the law book held by the maiden – thereby inflicting lawlessness on the country. This scenario seems very close to what Plato, Thucydides, Augustine, and Hobbes had in mind.



Figure 20:  
*The Attack*,  
by Eetu Isto  
(1899)

The iconic painting by Isto is recognizable to most Finns due to its political nature. Even today, over a century after its creation, its central theme has lingered in the collective Finnish memory. The message is echoed in works of culture and many history school books. Sentiments that point to Finland's perilous position in the world can easily be discerned by Finnish audiences in the 2010s. The painting clearly describes Finnish relations with Russia. "Russia", as an imaginary actor of this type, does something: It threatens, and creates anxiety. The stormy seascape in the background provides a labile context, its moment of crisis. The only stationary element is the bedrock underneath, which contrasts with the aerial nature of the attack. On its isolated island, Finland is located in harm's way. Thus, one key tradition in the Finnish political imagery paints a picture of "Finland as an island" in a sea of global political conflict and turbulence.

However, there is more depth to the "Finland as an island" imagery than that portrayed in the famous Isto painting. *The Attack* cover art can be contrasted with the cover of a book edited by Raimo Väyrynen (1999), titled "*Suomi avoimessa maailmassa: Globalisaatio ja sen vaikutukset*" [Finland in the Open World: Globalization and its Effects]. The cover is a painting – from the same formative period as Isto's – by Gunnar Berndtson, on the theme of the sea. In this work, the sea and island imageries are calmer and more stable (Figure 21). A clear relationship exists between the "maiden" in the foreground and the horizon, which seems to represent the "open world". The female figure is not holding a law book in her hand, but an instrument – a pair of binoculars – instead. The relationship is not polemic and exclusionary, but gives a striking impression of non-threatening tranquility, which is reinforced by the distinctly absent storm. The cover seems to suggest that the wider world is an object of longing and curiosity. There are further indications of meaning: the steamship and the sailing boats on the horizon may be read as vehicles of contact, of travel and commerce. The logs on which the maiden sits are signifiers of Finnish prosperity.<sup>66</sup> There is a sense of prosperity, and of providing access to the wider world.

"Finland as an island" scenarios have at least two central dynamic cores: one emphasizes turbulent motion and a sense of anxiety; the other expresses a hopeful attitude towards the consequences of crossing over. It can be suggested that these intellectual histories also colour the present-day debates on Finnish connectedness to the rest

66 There is a popular saying in Finland which refers to people living off its forests, which are its green gold.



Figure 21:  
Book cover for  
*Suomi avoimessa  
maailmassa:  
Globalisaatio ja  
sen vaikutukset*,  
by Raimo  
Väyrynen  
(1999)

of the world. Moreover, they are not cognitively distinct, nor mutually exclusive. In other words, “Finland as an island” scenarios often utilize both of these sources in their depiction of what is at stake, and what might ensue as a result of the Finnish connection to the global flows.

Thus, Finland is imagined as an island. The practical ways of building this scenario today are many. One common expression is that, from the point of view of logistics, Finland is an island nation.<sup>67</sup> The passenger traffic from Finland is mostly by boat (e.g. Tallinn, Stockholm) or by plane. In addition to the logistic version of the scenario, there are other geographical versions, such as “economically, Finland is an

67 See e.g. [http://www.puolustusvoimat.fi/wcm/d32d67804123e0e8acb2ac1cob52473c/TS\\_2013\\_verkkoversio\\_8.9.pdf?MOD=AJPERES](http://www.puolustusvoimat.fi/wcm/d32d67804123e0e8acb2ac1cob52473c/TS_2013_verkkoversio_8.9.pdf?MOD=AJPERES).

island because she is separated by sea from her main export markets” (Kilpeläinen 2004). Many of the scenarios tap into the geographical imagination. From the centre’s perspective, Finland is an island. One might state, for example, that Finland is an island from the perspective of continental Europe. Furthermore, some of the scenarios have cultural or ideological content. Namely, Finland is an island in terms of its Western civilization. The more cultural aspect of the island imagery stresses Finland’s position supposedly on the edge of Western civilization. The sealed border with the Soviet Union reinforced this interpretation during the Cold War. This version downplays the land connections to Moscow and St. Petersburg because they are not in the desired direction of Finnish mobility. Thus, there are different, partially overlapping, versions of the underlying “Finland as an island” imaginary:

1. *Cultural/ideological*: Finland as an outpost of Western Civilization
2. *Climate*: Finland with a harsh winter and icy conditions
3. *Economic/trade*: Finland separated from its main markets by the sea
4. *Logistic*: Maritime logistic routes as Finland’s main arteries
5. *Geopolitical*: Finland separated by the land border with Russia and the Baltic Sea

The fact that Finnish harbours freeze over during the winter adds further substance to the remoteness and isolation imagery. It also conveys a sense of the higher costs involved in Finnish maritime trade. Finland has a competitive disadvantage compared to its neighbours, who are closer to the main markets or more connected to flow access points, especially to the land transportation systems. Besides requiring the building of icebreakers, the icy conditions highlight the need for other logistical modes, such as air traffic or remote communication technologies, namely cyber solutions.<sup>68</sup>

68 What is particularly interesting about the climate-related version of the island scenario is that global climate warming seems to be hard-wired into the key imageries of the Finnish national identity. For some, this may mean that Finland is not isolated and that global climate change actually affects Finland positively in the form of longer and warmer summers, extended farming seasons, enhanced forest regeneration, increasingly available hydropower, and more easily exploitable natural resources. At the same time, however, Finland is also often seen, somewhat problematically, as being at least partially isolated and shielded from the numerous negative effects of climate change, albeit indirectly. Others, however, do recognize that Finland is not an island and that anthropogenic global climate change is not only likely to bring about complex challenges around the world, but given the existing interconnectedness they are likely to radiate all the way back to Finland, not least because “the small and export-led economy of Finland is extremely sensitive to global disruptions” (SITRA 2007).

One of the main connotations of the island scenario is that it reinforces what can be called an “island mentality”. This cognitive attitude can be characterized as believing Finland to be separate from the rest of the world in an exceptional and superior way. Foreign influences are viewed negatively and with suspicion. This way of thinking can also lead to an overemphasis on self-reliance. For example, the editor of the Finnish journal *Tiede* (8.1.2013), Jukka Ruukki, echoes the island scenario by stating that logistically Finland is an island, since 80% of its trade is maritime. He alludes to past calamities during which the Finnish security of supply collapsed with deadly consequences. His thesis is that the Finnish “island” needs to be prepared for sudden shocks in its logistical flows. He proposed that the Finnish strategy should be to focus on self-reliance when it comes to energy. Without its own resources, the Arctic country won’t be able to survive in the event that the external flows suddenly dry up. Energy self-reliance is an advantage for the “Finnish island”.

Contrary to the isolationist tendencies, the contemporary situation seems to favour a more international mentality and a “Finland as a connector” scenario, where the country acts as a bridge or link. This scenario is not altogether new, and was actually prevalent in Finland as early as the Cold War (e.g. Piiparinen and Aaltola 2012). The previous island imagery was transformed into a vision of Finland as a mediating connector between East and West. According to the prevalent foreign policy axiom coined by President Urho Kekkonen, Finland regarded itself more as a doctor than a judge in international relations. The “doctor” approach implied that Finland did not take a judgmental stance vis-à-vis the Soviet Union. The Soviet system and the superpower confrontations were framed as security problems, albeit “curable” ones if the engineered “fix” was applied in the right way at the right time. Finland was rebranded as a vitally important place on the hotline between the superpowers. In other words, framed in this way, the existence of the Soviet Union presented a test and, consequently, a potential source of prestige and power for Finland if it managed to resolve the problems. Through successful mediation policies, this allowed Finland to move beyond the ties of its international environment to the “higher” and “more prestigious” map of neutral mediators. The Finnish-Soviet relationship started to change from a marriage of convenience into one of tense co-habitation and, in the end, became the source of a particular brand of prestige and power for Finland. The Soviet Union became a valuable way for Finland to show that it could do things that were in the general interests of worldwide

appeasement. Metaphors of Finland as a “doctor” in connection with the “bridge” found their prime locus in the Conference on Security and Co-operation in Europe (CSCE), which was launched in Helsinki in July 1973. Finland managed to provide the initiative for the meeting and a place for East and West to come together. This strengthened the Finnish identity both at home and abroad as a neutral ground in between or above the ideological rift.

The “connector” idea can be seen as a continuation of the island framework in that Finland was still viewed as an entity that was distinct from the superpowers. The location of Finland was in-between. The connector imagery was fed by the high value placed on national consensus. The “doctor”-related policies were directed partly towards the nation itself. This activity re-imagined Finland as a national entity over and above the internal ideological rights and language battles. Foreign policy language became more refined, which the national audience was very cognizant of. However, the shared consensus on the Finnish approach had its limits. The idea of a mediating bridge was in tense contestation with the discourse of “Finlandization”, which surfaced with gusto during the 1970s. The term Finlandization referred to the morally dubious and subservient attitude of Finland towards the communist east.

The ways in which the initial fragile and marginal position was refined into a self-perceived privileged position is one of the most intriguing examples of Finnish internal and foreign policy. The mediation efforts placed a high value on the Finnish marginal position. This seemingly disadvantageous position was turned into a privileged vantage point. This meant that Finland was perceived as special because it had direct contact with actors in the East and West and was, therefore, able to more fully grasp their motivations. Closely related to this development was the ideational preference for a neutral middle position. Finland’s self-image during the Cold War was based on the idea that it mattered because it was tied neither to East nor West. It branded itself as a non-partisan intermediary. Finland identified with the Nordic values and, consequently, perceived itself as an exemplary avant garde force in European affairs. Finland acquired an important sense of agency, which was even recognized by the outside powers.

Another modality of the Finnish connectedness imaginary is, of course, the aspiration to become, or be connected to, not only to act as a connector and remain in-between. This has been captured in the underlying aspiration to connect Finland to the European and, more broadly, to the Western cultural and political community – while



simultaneously trying to maintain smooth-functioning, bilateral relationships with Finland's eastern neighbour (the USSR, Russia). The gradual integration of Finland into specific, politically feasible post-WWII European structures, such as the European Free Trade Area (EFTA), and subsequently in the post-Cold War era into the European Union and the European common currency, reflected the belief that Finland was a part of Western culture and her fate was ultimately linked to Europe and, again more broadly, to the West. It was the end of the Cold War in particular, and the widespread belief that history had come to an end (Fukuyama 1989), which provided the practical and ideational possibility to seek intimate integration into Europe and the wider world, and which paved the way for the idea that participation in the interdependent and inherently global system was crucial for Finland as a nation.

Today, the "connector" imagery has resurfaced in the recent national branding projects where Finland is viewed as a crisis mediator and problem-solver (Maabrändityöryhmä [Country brand work group] 2010). In this way, Finland can be seen as a bridge, connector, or mediator. For example, it is possible to claim that the history of Finland is first and foremost about its links and connections with the outside world. Or, even more concretely, that Finnish history can be read in its harbours and maritime links, as well as in its pioneering role in the development of mobile communications technology. Perhaps most illustratively, this idea is captured in the classic slogan of the Finnish telecommunications company Nokia: "Connecting People". This connector scenario has not only affected the recent branding projects in Finland, but more fundamentally seems to have evolutionary advantages in the world of global flows, where the very ability to establish, maintain and secure connections is becoming tantamount to being a successful modern state.

In this regard, contemporary notions of security of supply in Finland can be seen as being consistent with the overall historical orientation of the country. The development of the connector imagery can be seen as providing a natural inclination towards the argument that Finland benefits from global connections and that it can play a positive role in facilitating them, or in contributing to finding "fixes" to problems that may threaten them. Similarly, contemporary Finnish security and military thought has come to accept and emphasize the importance of international connections, dynamics and contacts, which, at the very least, complement the more traditional cognitive scenario of isolated and self-reliant Finland.

The notion of “Finland as an island” has traditionally been the main paradigm and starting point for Finnish preparedness planning, including the Finnish security and defence policy, and military security of supply. Stemming from Finnish experiences in World War II and the Cold War, and from the fact that Finland has remained a militarily non-aligned country, the Finnish national mindset has two traditional characteristics. First, Finland always needs to be prepared for the worst, and second, if the worst does in fact occur, there is no country, alliance, institution or norm that Finland can rely on to help. In other words, Finland needs to cope by itself. In the tradition of Finnish small-state realism, “the worst”, of course, was the actualization of the threat of Russia in the context of great power politics, and “self-help” meant the political choice of neutrality, confidential bilateral relations with Russia even at a high cost, and adequate military preparedness.<sup>69</sup>

Following on from this, Finland has traditionally stressed the importance of indigenous, self-sufficient preparedness – both in national defence and security of supply – more than many other nations. For example, the explicit core of the traditional preparedness planning paradigm has been based on the worst-case (military) crisis scenario. That is, the crisis scenarios where exceptional measures, such as security-of-supply activities, would be needed in full have been mainly focused on a traditional inter-state conflict. As one cannot fully rule out the possibility of the use of military force against Finland, this remains the starting point for preparedness planning even today. However, there is an increasing awareness that this traditional model needs be adjusted to today’s needs.

To a certain extent, this adjustment is an ongoing process in the broader Finnish security and defence policy. The growing importance of the geopolitics of flows is also increasingly affecting Finnish strategic discourse. The Finnish debate about its *security* has experienced a cognitive transformation. The ways of imagining a possible crisis or conflict increasingly account for *non-traditional security threats* as well as the *security of supply*, and concentrate on the national links with the surrounding world becoming either sources of threat or under

69 This was also complemented by the gradual emergence of a more active and international idea of Finland as a mediating bridge between the two superpowers.

challenge. In terms of the latter, Finland is commonly regarded as an “island” since its economy depends on its foreign trade via the Baltic Sea. The slogan that Finland is an island echoes in Finnish discussions about its security, economy, and identity. It is common for the main crisis scenarios to revolve around its shipping lanes closing or being under threat of closure. Since the Baltic Sea is also the main artery for Russian energy transport, it is easy to see how these scenarios of the Baltic shipping flows can capture the dynamics of a potential regional conflict. However, it should be noted that many of these flow crisis scenarios have the state, as a territorial entity, as their central focus. This set type of flow scenario makes it possible to meaningfully talk about Finland as an island in a sea of flows. This “archipelago” metaphor – namely states as islands in a sea of flows – is useful in pointing out the high degree of Finnish interdependency and its high reliance on flows.

Finnish preparedness planning has already taken steps to emphasize this growing importance of global flows, and flow security in general. The planning activity increasingly recognizes the importance of the global environment – and particularly global flow dynamics in an interdependent world – which undermines the metaphor of “Finland as an island”. Although Finland is officially a non-aligned country, in practice its security and defence policy planning has been influenced by the Western security paradigm, which emerged after the end of Cold War and especially after the events of 9/11. According to most Western security and defence policy strategy documents, the European defence environment has changed considerably since the Cold War. During the last couple of decades, the threat of a large-scale conventional war in Europe has been seen as negligible and unlikely. The contemporary world is seen as global and interconnected. In this world, Western threat scenarios have been focused on multi-dimensional, cross-sectoral and cross-border threats, captured under the rubrics of “new” or “non-traditional” security threats and/or “new” wars (e.g. Kaldor 1999). For example, the European Security Strategy (ESS) and its follow-up documentation reflect these changes. The ESS acknowledges terrorism, the proliferation of weapons of mass destruction, regional conflicts, failed states, organized crime and hostile cyber activities as the most relevant threats to European security – not a large-scale conventional war (ESS 2003, 2008).

Along with changes in threat scenarios, Western armed forces have also faced significant changes since 2001. Much of this has to do with the military operations in Iraq and Afghanistan, which

have significantly shaped contemporary armed forces in the West. The necessary capabilities, doctrines and concepts in these operations are distinctly different from those during the Cold War. The focus of the armed forces has changed from symmetrical warfare to multi-dimensional, expeditionary crisis management and/or more prolonged stability operations, where the opponent has typically been a hostile, asymmetric non-governmental actor. The doctrine that captured much of this – Counterinsurgency warfare (COIN) – (re)emerged in the course of the wars in Iraq and Afghanistan. The COIN doctrine emphasized that winning a war was more about the stabilization of the society in question than the elimination of the enemy, and to accomplish this the military needed to move away from the traditional reliance on “shock and awe” solutions towards “winning the hearts and minds” of the target population; lethal action was secondary and sometimes even counter-productive to this broader aim (Bell 2011). In this context, the theatre of operation also came to include other numerous and criss-crossing international civilian players, such as humanitarian, human rights and developmental NGOs, as well as IGOs, each with different goals and operational concepts, but many of which also, and perhaps even paradoxically given their pacific aims, came to be seen as “non-lethal assets” and potential “force multipliers” of the military in the broader scheme of things (Walker and Maxwell 2009, 74–75). At the same time, however, these complex operations have come to entail a wide range of different tasks for the armed forces as well, ranging from traditional warfare to crisis management, reconstruction, and even humanitarian aid.

More recently, signs of change have become perceptible in this concept of crisis management – primarily indicating a move away from comprehensive responses towards more limited and smart ones. With US and Coalition troops in the process of withdrawing from Afghanistan, the future focus may be more on (1) containing a potential threat within the crisis zone (e.g. to secure the freedom of the maritime commons), or on efforts to (2) surgically eliminate the threat at the site through special force operations or various remote capabilities (e.g. drones, cyber power, sanctions) rather than on responding to threats with large-scale and long-lasting land deployments and COIN warfare, à la Iraq or Afghanistan. This change was perhaps most candidly explicated in the 2012 US defense strategic guidance, which proclaimed that “U.S. forces will no longer be sized to conduct large-scale, prolonged stability operations” (SUSGL 2012, 6).

Furthermore, it is likely that the recent and ongoing events in Ukraine will affect Western and especially European defence thinking, but the magnitude of these effects remains to be seen. Most likely, they will spur a renewed and often intensive discussion on the status of the European territorial defence, for example in terms of NATO's in-area and out-of-area focus, and particularly the role of Article 5. It is also likely to have an effect on the assumed feasibility and rationality of military budget cuts, and the restructuring of the armed forces being carried out in most European countries.

Although the Western security and defence policy thinking appears to be going through a transformation, the existing Finnish official policy documents – such as *Finnish Security and Defence Policy 2012* (FSDP) – continue to draw heavily on the post-Cold War and post-9/11 threat scenarios that permeated the West. For example, the 2012 FSDP speaks of a global world that is multi-dimensionally interconnected, both in terms of possibilities and threats. On the one hand, globalization is seen to entail increased possibilities for, and intensification of, the connectivity of states and people, facilitated by advances in digital technology. Globalization is also seen to entail opportunities for economic development as a part of the global economy. Today, virtually all nations, including Finland, are said to be integrated into the global marketplace, and to be benefitting from increased economic interdependency and activity. Rising powers, such as China, India and Brazil, are identified as the key beneficiaries of economic growth in recent years (FSDP 2013). Whether one agrees with this analysis is open to debate, but an established perception of global connectivity is already in place in the Finnish strategic discourse.

On the other hand, there is also the perception – similarly open to debate – that the range of threats that Finland faces in an increasingly interconnected world has also changed from the traditional threat scenario. Military conflict in the Finnish neighbourhood is still considered to be unlikely in the foreseeable future. Instead, non-state actors and transnational processes are recognized as being increasingly important in an interdependent world. Finnish security and defence policy acknowledges that global problems emanating from a variety of interlocked and flow-related sources, such as population growth, climate change, and socio-economic inequality, can also be relayed to Northern Europe as comprehensive and multidimensional security threats (FSDP 2013). In other words, the Finnish security policy has acknowledged the blurred line between military and non-military threats and the importance of global interdependency and the flow dynamic.

That said – and although the threat scenario in the Finnish security and defence discourse is relatively convergent with other Western strategies of the early 21st century – there exists an enduring belief that Finland still has certain special characteristics that distinguish it from the majority of other Western countries.<sup>70</sup> These special features include its geopolitical location, military non-alignment, territorial defence and military conscription.

While expeditionary military crisis management has been the core task of various Western armed forces in recent years, the Finnish defence policy has had, and still has, a different focus. The main and most important statutory task of the Finnish armed forces remains territorial defence. The other tasks inscribed in the law on the defence force include the provision of support for other national authorities and participation in international crisis management (11.5.2007/551). Indicative of this, Finnish military capability planning has been based on the so-called “single track” approach. What this means is that the defence planning is focused on the development of national defence capabilities designed for territorial defence, which may, *mutatis mutandis*, also be used for supporting other national authorities and international crisis management activities. On the other hand, the fact that the defence system is designed in close collaboration with NATO standards and processes does connect the defence forces’ first (territorial defence) and third (military crisis management) statutory tasks and allows, among other things, for the possibility and capability of receiving military assistance in exceptional circumstances. Although traditional inter-state military conflict in the Finnish neighbourhood is still regarded as highly unlikely, the use of military force in contemporary crises – most recently in Ukraine – and particularly Russia’s more assertive behaviour and enhanced overall military capability, are seen to justify and actually necessitate the development and maintenance of a credible national defence deterrent.

While the emphasis on international military and political cooperation is likely to remain high on the Finnish agenda, the main constitutive elements of Finnish security and defence policy planning are not expected to undergo any major changes. In spite of the ongoing Finnish defence reform, the strategic guidelines on the defence policy will most likely remain largely unchanged in the foreseeable future.

70 This expresses the view that Finnish foreign and security policy should be understood as a unique phenomenon, i.e. there is a Finnish foreign policy *Eigenart*. For a discussion, see Aaltola (2003, 23).

The Defence Policy sub-strategy (MoD 2011a) sets out the following guidelines for the development of national defence until 2020:

1. The tasks of the defence forces will remain the same. National defence remains the most important task for the defence forces. National defence capabilities will be used flexibly in support of other authorities and international military crisis management. The tasks of the defence forces and resources will be balanced accordingly for these duties.
2. Wartime troops will be reduced, but the defence forces' capability will be improved. The whole country will be defended. The peacetime training system will be streamlined. The defence system is networked defence, in which mobility is of great importance. The impact of the decrease in troops on the defence capability will be balanced by developing the quality and skills of forces and capabilities in all areas.
3. Defence capabilities and national defence will support each other. Conscription will be maintained, but it will be developed to respond to the requirements of the defence capabilities and the will to defend. The national defence capability supports society's crisis preparedness, thereby contributing to the national will to defend. National defence will remain one of the main bases for defending the nation.
4. Networking will deepen and diversify. The defence forces and the rest of society are becoming increasingly multi-dimensionally interdependent. International cooperation will deepen and diversify. The responsibility for international security will increase.

Perhaps the most visible change in the broader strategic discourse in Finland is related to the last point above. With the end of the Cold War, the Finnish geopolitical position is taken to have evolved as a result of technologically enabled, increased socio-economic interconnectedness and political integration, most notably deep integration into Europe (the EU, Euro) and *de facto*, though not *de jure*, participation in the trans-Atlantic (security) community. Partly stemming from these factors, more emphasis has been put on the notion of a broader conceptualization of security. The idea of "comprehensive security" (FSSS 2010) covers a wide range of security issues which may constitute a risk or cause significant harm to Finland, the Finnish population or critical functions of society. Such a broad range of security threats could either comprise the intentional action of states or non-state actors – such as the use of military force, terrorism

or cyber-attacks – or unintentional events, such as extensive energy network malfunctions or extreme natural disasters.

In other words, the contemporary world of which Finland is a part is considered to be multi-dimensionally interconnected in terms of both threats and possibilities. This calls for a comprehensive approach to security policy, including the need for proactive as well as reactive measures in promoting regional and global stability, in addition to the more traditional focus on national security (which is articulated today in a comprehensive manner).

In today's world, one of the most notable developments is the fact that advanced societies like Finland have become increasingly dependent on critical infrastructure, and various kinds of networks and related services in particular. This has also affected how potential security threats are understood, given the (often inexpensive) technology that can be utilized by state and non-state actors alike to take advantage of complex vulnerabilities in networked and interconnected societies. While large-scale military deployments and traditional war-making can never be excluded, any possible future military aggression against Finland is likely to include a diverse range of means and aims, including strategic strikes against critical infrastructure in society, such as information and energy networks (FSDP 2013). Securing the critical functions of a networked society requires a comprehensive approach, which also includes the national defence component and aspect. Future conflicts are likely to increasingly involve smart warfare that targets, and seeks to affect, the whole society over a long period of time, rather than just traditional armies fighting against each other at or near the territorial borders.

Finnish defence planning has traditionally highlighted the notion of security of supply. When society is increasingly dependent on information and energy networks, and thus perceived as increasingly vulnerable and fragile, their reliability and security becomes increasingly important. This involves different aspects, such as securing the operation, supply and maintenance of these infrastructures. In the event of a crisis, military defence is dependent on the security of supply of the rest of society, which not only supports national defence but makes it possible to begin with. Society's general security of supply may be reduced by the dependence on energy imports, the increase in the use of commercial and vulnerable systems, as well as by disruptions in the supply of critical goods and services, which may in turn be caused by an increase in foreign dependencies and/or ownership of the Finnish industrial base. Military security of supply



is further compromised by the fragmentation of the Finnish defence industrial base, and its inability to adequately produce all the necessary defence materiel that is needed in times of crisis.

In this strategic environment, the need for national and international cooperation (also) in the military aspects of security of supply is increasingly highlighted. As the Finnish military-industrial complex does not have all the necessary capabilities, emphasis must be put on international defence materiel cooperation, on contractual arrangements, and on strategic partnerships. The very credibility of Finnish national defence is reliant, above all, on national and international networking. From the point of view of the effectiveness of national defence, it is deemed essential to pinpoint the most critical capabilities that need to be upheld indigenously through domestic co-operation and networks (e.g. between the defence industry and the scientific community), and those capabilities that can be acquired through foreign networks and partnerships. International networking is seen to play an essential role in securing the nation's military security of supply.

Today, Finland participates in international military networking that takes place bi- and multilaterally, as well as within the established frameworks of NATO and the EU. International cooperation facilitates, among other things, the receipt of military aid (Host Nation Support), being interoperable in crisis management operations, a cost-effective defence materiel policy, and research and development (R&D) efforts. From the Finnish perspective, NATO's Partnership for Peace (PfP) activities are seen as integral to maintaining and developing national military capabilities during peacetime. In addition to the development of capabilities, participating in global crisis management in the UN, EU and NATO crisis management operations is seen as a part of the burden-sharing in maintaining international security. In practice, Finnish military capability development is conducted in accordance with NATO's STANAG standards (Standardisation Agreement) in NATO's PARP process (Planning and Review Process), and under the selected partnership objectives guided by the OCC (Operational Capabilities Concept), and in the E&F programme (the Evaluation Feedback Programme), as well as by participating in NATO's rapid reaction force (NRF). It should be noted, however, that the essence of compatibility in NATO does not lie in the compatibility of the materiel used, but in the existence of common practices, the exchange of information, and in a common language and concepts. The materiel compatibility only complements these core compatibilities (Mikkola et al. 2012, 193).

While it may sometimes be difficult to admit, it is vital to recognize that the Finnish defence capability development is dependent on foreign actors and smooth-functioning international networks. Military capabilities are developed through the various concrete projects of the broader development programme in the defence force, and these projects may include a number of individual domestic or foreign procurements. When buying defence materiel from abroad, the defence forces emphasize the so-called military off-the-shelf (MOTS) products, which are ready to use and tested in practice, while procurements including R&D work are undertaken domestically. The Finnish Materiel Policy Strategy stresses the domestic industry's ability to integrate, maintain and repair the key weapon systems of the defence force. According to the strategy, procurement "is carried out by the domestic industry when it is justified for economic or security-of-supply reasons. Foreign procurements have been conducted through multinational and bilateral cooperation contracts with an emphasis on ready-made and tested products. In order to maintain the domestic critical knowledge and capacity, the research and technology development work has been acquired, in principle, domestically" (MoD 2011b).

The strategic emphasis here is clear: in the case of ready-made, off-the-shelf products acquired abroad, it is essential to guarantee the security of supply of the goods from the selling company/state, while the integration and repair capability of the purchased materiel must be domestically sufficient.

There is a growing international trend which highlights the importance of international cooperation in the defence sector. In practice, previous international cooperation has been limited to what might be called ad hoc projects as opposed to strategic initiatives and long-term development commitments. The Finnish defence administration has participated in these ad hoc projects if the project has been seen to be compatible with the defence forces' own development programmes, and if the national project has "happened to fit" by definition and in terms of the schedule for international cooperation. The future may bring more integrated and planned international cooperation in the field of European defence. Being part of this emerging cooperation is seen as the lifeblood of the Finnish national defence planning and development. In addition to EU-level cooperation, for example in EDA, cooperation is on the increase in NATO PfP activities (including NAMSA, and the development of interoperability and standardization), in the context of the

NORDEFCO framework (in particular the security-of-supply issues and crisis management capabilities), and bilaterally (MoU; security of information management and the promotion of exports).

Assuming increasing global interdependency, safeguarding of military security of supply, and overall military preparedness requires – in addition to purely domestic resources and cooperation – increasingly significant and reliable international arrangements that benefit all participants. The 2011 Finnish Materiel Policy Strategy highlights this fact: “security of supply is safeguarded with competitive and technologically advanced industry, well-functioning logistical systems, service purchases, as well as with efficient service, maintenance and repair activities. Safeguarding capabilities requires international contractual arrangements, as well as a long-term strategic partnership with the materiel and service providers, which covers and guarantees the supply of materiel and the availability of maintenance and repair capabilities also in exceptional circumstances” (MoD 2011b).

All in all, it seems to be the case that (perceptions of) global interconnectedness and interdependency are increasingly affecting the Finnish defence and security planning. Although Finland is officially a non-aligned country, its national defence has essential international enablers, without which credible national defence capability is seen to be impossible to maintain. Similarly, the emphasis on global interconnectedness, interdependencies and even flow security has already had an impact on the threat scenarios, concepts, capability development and future tasks of the defence sector.

Looking into the future, recent trends in the international security and defence policy discourse are highlighting the sheer importance of securing the key global and regional economic (financial markets), commercial (sea and air traffic), information (data networks) and military (military power projection) flows. This is apparent even in the case of Ukraine, where the fate of the Crimean peninsula (and now Eastern Ukraine) is tied to the fate of energy, financial and informational flows, not only in and to Russia, but also elsewhere, as in the case of financial flows in the City of London or natural gas flows in Germany or Finland (e.g. the debate on the Russian gas pipeline versus non-Russian LNG transport). Reflecting this, recent strategic documents emanating from the US and NATO have emphasized the task of securing the global commons and global flows as an indispensable element in the existence and functioning of the contemporary world order (SUSGL 2012; see also Aaltola et al. 2014). This is also increasingly acknowledged in Finland. For example, the recent 2012 Finnish

security policy white paper states that “[s]ecuring the global commons (freedom of the seas, the airspace and man-made cyberspace) and protecting the free and reliable use of cyberspace are questions of growing importance” (FSDP 2013, 23). This trend further emphasizes the increasingly international aspects of the contemporary security and defence environment, and is likely to downplay the very possibility of self-reliance in favour of an international mindset and pragmatic co-operative solutions.

#### 6.4

##### FINNISH SECURITY OF SUPPLY: FROM STOCKPILES TO COMPLEX CONTINUITY MANAGEMENT

These changes in the analysis of the security environment have had an impact not only on Finnish preparedness planning in general, but on the Finnish security-of-supply paradigm in particular. According to the official definition, the notion of “security of supply” refers to the task of safeguarding and preserving the productive capacity, services and infrastructure critical for the livelihood of the population, for the national economy and for national defence, under all and particularly exceptional circumstances, including serious external disturbances and states of emergency. This definition calls for emphasis to be placed on a range of scenarios that pose a threat to the functions of Finnish society, including disruptions in communication and information systems, failures in energy supply, serious collapses in the health or capacity for action of the population, and natural disasters. The most serious threat to national security of supply, however, is the emergence of a crisis during which the ability to produce and acquire critical supplies and services from abroad is temporarily weakened (VPHT 2013, 1).

Of course, this is not a universal definition and the interpretation of the notion varies from country to country. In fact, there does not seem to be a widely shared definition even in Europe. Security-of-supply considerations tend to remain unique to each country due to the specific internal and external characteristics, including differences in energy self-sufficiency, natural conditions, political situation, security policy solutions and logistical connections (see EVPHT/P 2013, 4). What is worth highlighting, however, is that the Finnish understanding of security of supply typically has a broader scope than in various other countries. In its international meaning,

the notion tends to refer more explicitly to the security of supply of any given critical product, most notably energy, whereas in Finland it also includes several other aspects, such as critical infrastructure protection; maintenance of communication and information networks, systems and services; maintenance of logistics and transport systems; food and water security issues; supply of critical medical services and medicines; and even the aforementioned military security of supply.

It has been argued throughout this report that the global circulations and flows are increasingly important and that they are challenging old policy solutions, most notably national self-reliance. Due to their more limited resources and highly specialized and dependent economies, many small states in particular face high adaptive pressures. They have been relatively exposed to fluctuations in international trade. Small states are likely to exhibit greater dependency on other (larger) states and non-state actors. In this sense, international interdependency is asymmetric.

Finland, in particular, is a nation that is critically, and often also asymmetrically, dependent on its external connections, for example economically, politically, culturally and even militarily. As Finland is likely to be increasingly dependent on global flows of resources, goods, finance and ideas, autonomous and self-sufficient national preparedness and especially security-of-supply action by national authorities have been considered to be increasingly difficult. In particular, this is because a significant part of the services, goods and infrastructure which are critical to a functioning society are owned or operated by private sector actors abroad (EVPHT/P 2013, 1, 6-8). This easily leads to the conclusion that perhaps the most vital issue in securing the overall security of supply in Finland today is to try to ensure that the operating conditions for these critical private enterprises are adequate around the world.

On the one hand, this means that a relatively stable, predictable and – some might argue – fair and sustainable politico-economic environment both at home and abroad is seen as an overarching aim of contemporary national security of supply. This is seen to require a “whole of government” approach in which the security-of-supply aspect should be a part of various policy-making sectors and adopted policies prior to any major disruption or crisis; in fact, aiming to prevent them as far as possible. What this actually means in terms of concrete policy options, especially when security-of-supply action is becoming understood as an ongoing, whole of government continuity management practice both at home and abroad prior to

any major conflict, remains an open question and is likely to call for a national debate about the Finnish policy on domestic and international economic order and its premises, practices and trade-offs.

On the other hand, it also means that for-profit actors in the private sector are considered to have a crucial role to play in identifying threats and managing risks as a part of their continuity management practices – namely, as a part of tailored measures (e.g. management models, pre-designed arrangements) that the organization has devised and adopted in order to manage disruptions to its operations. For-profit actors are then simultaneously expected to have a positive impact on the general security of supply of society by guaranteeing the supply of critical services and goods for the population, commercial sector, and other actors, for example in civil society (EVPHT/P 2013, 2).

The contemporary notion of security of supply is increasingly understood within the framework of a broader notion of safeguarding the critical functions of society. In its official policy, the Finnish government has identified the following key functions of society that need to be operational at all times:

1. Management of government affairs
2. International activity
3. Finland's defence capability
4. Internal security
5. Functioning of the economy and infrastructure
6. The population's income security and capability to function
7. Psychological resilience to crisis (FSSS 2010)

Correspondingly, there are multiple threat scenarios that are seen to potentially endanger security in society and its vital functions. FSSS 2010 has identified the following as the most severe:

1. A serious failure of the power supply
2. Serious disruptions to telecommunications and information systems
3. Serious disruptions to logistics
4. Serious disturbances in the community infrastructure
5. A serious disruption to the food supply
6. Serious disturbances in the finance and payments system
7. Failing access to public finance funding
8. A serious disturbance in the public health and well-being
9. Major accidents, extreme weather conditions and environmental threats
10. Terrorism and other types of crime posing a threat to society
11. Serious disturbances in border management

12. Political, financial and military pressure

13. The use of military force (FSSS 2010)

Here, it is important to note that not only do these scenarios point towards dynamics that are typically transnational in nature, but they also highlight the importance of the global flow dynamic. In effect, they envision a well-functioning Finland as a node in the networks of global circulations of information, finance, goods, disease, violence, and so on. This means that the security of the critical functions of Finnish society – such as the telecommunications systems, logistics, finance system and even the food supply – are increasingly dependent on international interaction, international networks of flows, and the processes that sustain them. The official policy of the Finnish government acknowledges this when stating that “[...] safeguarding the security of supply is based on well-functioning international political, economic and technological connections” (VPHT 2013, 1). Consequently, responding to these perceived threat scenarios is considered to require not only a whole of government approach and national resilience – namely, the adaptive ability to sustain key societal functions even in a post-shock state, for example by utilizing auxiliary systems, alternative sources or supply routes – but also participation and influence in transnational networks and institutions to facilitate an adequate operational environment (see also EVPHT/P 2013, 1).

Of course, this is not to imply that the more traditional domestic security-of-supply activities would be irrelevant. For example, emergency stockpiling of certain critical goods or resources, such as fuel, grain and pharmaceuticals, is still important in the event of unexpected disruptions to logistics or international markets. Even today, there is a plausible case to be made for Finland having certain characteristics that not only require, but also provide, possibilities for domestic security-of-supply actions. These enabling factors include relatively large quantities of natural resources (e.g. wood, grain, water, minerals), reasonable food production and delivery capability (although the latter faces challenges in rural areas), and a relatively proficient physical and ICT infrastructure. Moreover, specific governmental organizations, such as the National Emergency Supply Agency (NESA), have the capacity and know-how to plan and prepare these traditional, national security-of-supply activities (in addition to planning, or contributing to the planning of a broader set of actions and policies aimed at maintaining national security of supply in non-crisis situations).

This report has argued that the mobility of people, goods, and services differentiates localities depending on their ability to act as hubs and relay nodes for various transnational activities, such as trade, resource, and financial flows. This means that the intensity and regularity of the flows is an increasingly crucial indicator of a locality's economic viability and national power. What can be inferred from this, given that Finland is a small country with a specialized economy, is that there is widespread recognition that the integration of the Finnish economy into the global economy and its various flows is of the utmost importance.

On the one hand, due to a relatively small domestic market, the Finnish economy is to a large extent dependent on export, and thus especially on a stable and well-functioning – as opposed to uncertain and crisis-prone – global economy. According to illustrative OECD figures, the share of exports in Finnish GDP was 40.6 per cent in 2012, which is approximately 6 per cent less than in 2008 when the effects of the financial crisis had not yet hit (OECD 2013). On the other hand, Finland is also dependent on the import of various resources, goods and services from abroad. As a result, changes in the global market logic have entailed that the overall Finnish security of supply has become increasingly dependent on foreign infrastructure and primarily for-profit actors that manufacture, provide and/or transport goods to Finland (LOGHU3 2011; KH 2010). Of course, this is not to deny or forget the fact that a significant part of Finnish energy supply is dependent on Russian imports of natural gas, and thus on public actors (e.g. Gazprom, and ultimately the Russian political elite).

While Finland remains highly dependent on global networks of flows, there is growing recognition that flows themselves are susceptible to disruptions. This is perceived to introduce complex sources of vulnerability and threat to the Finnish security of supply in the contemporary world (of flows). The global division of labour and the growth and fragmentation of supply and value chains have increased the interdependence between actors, albeit in a complex and asymmetric manner. At the same time, these complex chains on which the supply of various goods to Finland (and elsewhere) depends are perceived as vulnerable at various points and from various sources. For example, the phenomenon of compartmentalization – that is, the concentration of the production of certain items in a certain geographical area – has reduced the possibility to diversify the supply of certain goods, thereby potentially reducing the overall security of supply (LOGHU3 2011). On the other hand, the very fact that supply



chains tend to cross various geographical and political spaces as a result of advances in digital technology and logistics is seen to radically increase vulnerability as a function of various threat factors (e.g. KH 2010). What is problematic from the security-of-supply perspective is that the higher level of security in a supply chain may nevertheless come at a high price. This is because optimized, cost-effective production and logistic systems do not usually include the redundancy required for the guaranteed flow of critical good and services.

Thus, a contingent natural catastrophe, pandemic disease or political crisis in another country or part of the world could disrupt any specific part of the supply chain – including the “nodes” of production and logistical “seams” of transport in between them – and affect the reliability of national security of supply in a world of global flows. For example, air travel and logistics in Europe, as well as to and from Finland, were temporarily disrupted as a result of the airborne ash cloud in the European airspace following the volcanic eruption in Iceland in 2010. Pandemics, such as SARS, bird flu and swine flu, are seen as signs of potentially spreading and immobilizing disease that may reduce travel and paralyze societies and logistics sectors. Global climate change, on the other hand, is seen to present a more long-term challenge to global supply chains in the form of extreme weather conditions, such as intensified storms, floods or rising water levels that may disrupt key transport routes, close important logistics hubs/ports, and disrupt the supply of energy to production sites (KH 2010). From the perspective of politics, state failure in Somalia and the emergence of the threat of piracy around the Horn of Africa has perhaps been one of the most discussed – even if only partly realized – examples of a threat to the “free” movement of goods and resources in the maritime domain.

From the perspective of overall national security of supply, including the security of critical infrastructure, Finland itself is often considered to be a low-risk country in many ways. Key factors that are typically mentioned include a relatively stable, equal and just society, a well-educated population, a representable political system, a stable legal system, the absence of gross corruption and indigenous terrorism, and a favourable natural environment (e.g. the absence of seismic activity). However, given the increasingly deep integration of Finland into the global economy and the complex vulnerabilities that this entails, a stronger emphasis has been put on understanding the impacts and dynamics of global flows in safeguarding the nation’s critical infrastructure, supply of goods and resources, know-how and functions.

Stemming from the combination of transformations in contemporary threat scenarios, global market logic and global supply chains, the Finnish security-of-supply premises are gradually transforming. There is an increasingly growing awareness in Finland of the limitations of a purely domestic, indigenous and self-sufficient approach to security of supply in the age of global flows. This cognitive transformation will most likely continue to have a concrete impact on how the national security of supply is safeguarded in the future.

This cognitive transformation does not mean that the traditional understanding of the security of supply is irrelevant, merely that it is seen as increasingly limited in terms of being the sole solution. Today, the trend seems to be that the traditional focus on domestic material preparedness (e.g. emergency stockpiles, defence materiel) ought to co-exist and be complemented with a new emphasis on the continuity management of national and international actors, networks and processes. In other words, the focus of the contemporary security-of-supply paradigm is transforming from the indigenous response in a (military) crisis scenario towards an increasingly complex practice that seeks to ensure the key functions of society in an interdependent global environment, and even under normal conditions, not only or even primarily during a crisis. This reflects the ongoing cognitive transformation away from the idea of “Finland as an island” towards the notion of Finland as an inherently, albeit asymmetrically connected and interdependent actor in a world of global flows and interactions (see e.g. VPHT 2013; KH 2010; LOGHU3 2011; FSSS 2010; EVPHT/P 2013).

## 6.5

### THE FUTURE OF FINNISH SECURITY-OF-SUPPLY PLANNING: KEY ASPECTS TO CONSIDER

This ongoing paradigmatic transformation entails that national efforts at maintaining security of supply in Finland are likely to take place at various levels, in multiple forums, and expended by numerous actors – within and outside of Finland itself. Due to the fact that the contemporary security-of-supply equation is increasingly complex, there is a growing appreciation of an up-to-date situational awareness that ranges from practical efforts to identify dependencies and vulnerabilities in critical infrastructures, logistics and production to a more political and strategic assessment of international developments,

## DIFFERENT GEOPOLITICAL MODELS, DIFFERENT SECURITIES OF SUPPLY

The three types of co-existing territoriality elaborated in Chapter 2 – the state-based, empire-centric, and nomadic flow models – all have their distinct security-of-supply scenarios. The classic state-based paradigm envisions a sovereign territory that is able to absorb possible crises and shocks by being relatively self-reliant. Sovereignty is often perceived as the avoidance of too deep an interdependency, so as to prevent it from turning into dangerous dependencies. The imperial model highlights the need for the peripheries to maintain and supply the imperial heartland. The imperial sphere of influence has to comprise an economically viable entity that has access to all strategic resources. The nomadic, flow-related scenario transforms security from a national need into a global characteristic. Security relies on dependencies and on securing access to the arteries of interdependence. The dependencies are taken for granted, and the main attention turns to securing access to the global supply chain and to making the flows as steady and resilient as possible. Thus, there is no single and eternal notion of security of supply. It changes as the world changes. In the Finnish case, it is increasingly about the nomadic flow scenario, with some remnants of state-based self-reliance and some apprehension concerning the strategic use of dependencies by the major states to gain political leverage.

The overall Finnish security of supply can be seen as a hybrid scenario where all three models provide key characteristics. To a degree, Finland is still a sovereign island in an archipelago of similar state islands. There is a need to secure this sovereign entity against different types of supply disruptions by having critical supplies at hand for the necessary time periods. At the same time, Finland is a part of a larger entity, the European Union, whose overall viability is seen as important for national security. Both of these spheres of security act as templates for the more nomadic and flow-related framing of Finnish security. Finnish and European security of supply are often seen as being increasingly based on more global, dynamic interdependencies and flows. For example, many of the key resources to Finland and the EU flow from regions that have a surplus of hydrocarbons. The critical infrastructure connecting Finland and Europe to these regions needs to be secured on a sustained basis. The more imperial model is present in the Finnish discussion concerning its location in the borderland next to Russia. This debate is an old one, yet still controversial and sensitive. It manifests itself in the discourse that sees Russian trade (e.g. energy) as both a key component of the Finnish economy and a potential security-of-supply concern.

coupled with the ability to react quickly to rapidly changing, and oftentimes unanticipated, circumstances. This complexity means that effective security-of-supply planning requires an increasingly holistic approach that takes into consideration a range of technical, political and politico-strategic aspects – both domestically and internationally – that are likely to affect the future security of supply.

First, the growing emphasis on continuity management in security of supply highlights the importance of the *practical work by security-of-supply experts that starts within national borders in the first instance*. Most notably, the increased role of private sector actors in the security-of-supply equation is seen to require not only increased know-how in managing commercial contracts with key for-profit actors, but also long-term efforts at enhancing the continuity management practices of these domestically located national or international actors themselves through the development and dissemination of relevant information, tools and training for the task. This, in turn, is also expected to enhance the commitment of these private sector actors to contribute to national security of supply in the long run.

However, there are still certain key sectors, such as telecommunications and energy supply, in which contractual or collaborative domestic public-private efforts are seen as inadequate, and more robust measures, most notably binding legislation, are required to oblige key actors to prepare for exceptional situations and disruptions. To the extent that critical services are outsourced to the private sector – a scenario that has become all the more common – there is also a need to monitor and, if need be, enforce the fulfilment of contracts.

Secondly, this domestic focus is naturally insufficient, given the integration into, and dependency of Finland on international economic and technological structures, networks and processes that are beyond its direct formal jurisdiction. This indicates an important implication for the effort at safeguarding national security of supply: the increased *internationalization of security of supply*. To the extent that it is possible, Finland needs to exert influence in various international contexts (e.g. non-governmental and intergovernmental forums and organizations) and processes (e.g. standardization, soft law making) in which shared standards and best practices are created for various technological solutions and commercial activities. The underlying assumption is that agreeing on standards or best practices can yield multiple benefits for a small state dependent on reliable global circulations, including enhanced interoperability (e.g. between

technological platforms), transparency and stability, and reduced costs. The more Finland can participate in these forums and processes, the more influence it can wield relative to its political and economic “weight”. Capable individuals – often but not solely public officials – with up-to-date knowledge on a given subject, good negotiating skills and extensive social networks may play an often-underestimated role in this.

Of course, the more importance these “softer issues” assume in the day-to-day global praxis, the higher the political stakes related to them become. This calls for a more *politico-strategic approach* that highlights the role of power in the reproduction and regulation of flow practices. Although global networks of flows are complex, spanning various continents and involving various interacting actors and technologies, many of the major flow systems are nevertheless remarkably stable and predictable. Their novelty goes hand-in-hand with continuity and endurance. This is well illustrated by the steady hum of aviation and maritime logistic flows. Much of this is precisely the result of prior standardization and shared practices, according to which the global flows are organized, or able to self-organize. Equally important, however, is the recognition that free access to, and assured use of, the global commons and particularly the maritime and air commons (as spaces of flows) is vital to the very possibility of stable and enduring (maritime and air) flows – as well as to the state and non-state actors that are critically dependent on them. Ultimately, the freedom of the commons has been guaranteed by the political, technological, and military capability of the US in the post-World War II era.

The development of standards and their subsequent internalization as, and into, practices is itself an important playing field for politics that is often overshadowed by a more common focus on co-operative and/or bureaucratic efforts at finding common solutions to practical (e.g. economic, technological) challenges. The Transatlantic Trade and Investment Partnership (TTIP) initiative is a good example here. TTIP aims to facilitate trade between the US and the EU by removing trade barriers, achieving greater regulatory compatibility, and ultimately by setting new global standards for trade and investments (to which third countries would need to harmonize their policies). However, the initiative may simply be too important to leave to the economists. While negotiations on the technical details of economic convergence are important, there are political and strategic considerations – most notably the strategic effort to renew economic and political liberal order

and set new standards for future global trade – that set the broader context for, and highlight the importance of, the agreement and thus ultimately politicize it (van Ham 2013; see also Hamilton 2014).<sup>71</sup>

The question then arises as to who has the effective power to influence the evolution of key standards that organize and regulate global interactions (e.g. global economic interaction) and, in this study, specifically flow practices. To what extent are small sovereign nations, such as Finland, ultimately norm-takers and the more powerful states, such as the US, norm-shapers of global flows? In fact, to what extent does it even pay to talk about “sovereign” small states if the answer to this question tilts towards the more powerful ones, such as the US with its global strategic vision and ambitions? Moreover, states are certainly not the only players or necessarily even the most important ones when it comes to creating new standards. Thus, it is also pertinent to ask what role is played by private stakeholders, such as powerful multinational corporations, in the process. In some areas, such as the cyber domain, their role is likely to surpass the capacity of any public actor to produce and disseminate shared technological standards or solutions outside certain specific state-dominated sub-sectors, such as the intelligence community. And, of course, what is the role of international bodies and forums in negotiating and generating new standards and best practices, for example in the case of the International Maritime Organization, which seeks to influence the emergence of safe maritime transport practices in the opening Arctic? Do they exert independent influence and to what extent? Or are they best seen as agents of other actors, such as powerful states, or representative of influential interest groups, such as powerful companies or lobbies? All these political and power-laden questions need to be taken into consideration if and when Finland seeks to participate in forums or processes of standardization.

71 As van Ham (2013, 6) argues, “[s]uccessful regional trade deals would send the message that economic and political liberalism remains the preferred and superior organizing principle for modern, thriving societies. The standards developed within TTIP would also serve as the basis of new, global standards, particularly if the EU and US were to extend them to third countries with which they have Preferential Trade Agreements (PTAs)”. A similar argument was put forward by Dan Hamilton in his presentation at the FIIA seminar “The Need for a Transatlantic Pivot? TTIP and the Return of Geopolitics”, The Finnish Institute of International Affairs, Helsinki, April 11, 2014. See also European Commission (2013) “What is the Transatlantic Trade and Investment Partnership (TTIP)?”, <http://ec.europa.eu/trade/policy/in-focus/ttip/about-ttip/> and (2013) “Member States endorse EU-US trade and investment negotiations” <http://trade.ec.europa.eu/doclib/press/index.cfm?id=918>.

Insofar as Finland – as a small state dependent on global flows – does prefer a predictable and stable norm-based multilateral international order, it is likely to gain (more) by being part of, and active in, various networks in which not only indirect but also direct governance of flows takes place (even if its actual ability to influence remains limited). However, whether this means participation in *all* the networks of governance remains an open question. This is particularly the case with the North Atlantic Treaty Organization (NATO) as the leading governance framework on security issues in Europe. On the one hand, NATO is often approached by highlighting its two main functions – the provision of collective security within the area of the alliance, and the provision of collective and regional security by seeking to influence developments outside the territorial reach of the alliance, such as in Kosovo in 1999 and in Afghanistan in 2003 and beyond. While both of these functions have been analyzed and criticized in recent expert and scholarly studies, what is less emphasized in any discussion on NATO is the potential of the alliance to act as a security-of-supply actor, especially in a world that is increasingly premised on stable flows and flow security. For example, could NATO (also) be seen as a flow security provider and a stronger security-of-supply organization? Could NATO membership contribute to Finnish security of supply? And how would *that* affect the Finnish relationship to the organization, if at all?

This report acknowledges that it is possible to come up with plausible arguments that may swing the answer to the NATO question in many ways – in fact, the authors themselves share differing views on the role of NATO, as well as the Finnish relationship to it. From the perspective of the world of global flows, however, answering the question requires innovative thinking on the potential role of NATO vis-à-vis the networks of flows and flow security, which would not be limited by the traditional debate about NATO's in-area and out-of-area roles, even in the light of ongoing developments in Ukraine. This new thinking is particularly pertinent to a small state like Finland, which is critically dependent on various flows in its geographical vicinity, as well as around the world. While public discussion on the relationship of Finland to NATO is likely to remain ongoing – for example, should Finland seek full membership or remain militarily neutral, or should the Partnership for Peace (PfP) programme be rethought and upgraded? – it would also be important to include in the debate a reflection on the role of NATO vis-à-vis global flows if, and when, the world of global flows is accepted as an important aspect of the political reality of 21st century geopolitics.

As this consideration alone indicates, the Finnish security of supply cannot take place in a political vacuum or in isolation. In addition to cooperation carried out with the potentially transforming NATO framework, Finland is already a part of several other bilateral, regional and international arrangements that affect Finnish national preparedness and resilience both in times of peace and (potential) crisis today (EVPHT/P 2013). This needs to be recognized more clearly.

The European Union is currently the most important international platform for Finnish foreign, security as well as trade policy, which makes the Union relevant also from the broader security-of-supply point of view. Of course, when it comes to the security-of-supply sector per se (especially in the more traditional and limited sense), the 28 EU countries differ in their security-of-supply approaches and have varying definitions of the whole concept. As discussed, this is mainly due to differing national interests and characteristics between the member states. Similarly to the European defence sector, the differing interests and security policy solutions have meant that the security-of-supply sector hasn't been at the forefront of European integration, for instance when it comes to the development of EU legislation.

While not spearheading nor playing a central role in EU activities, there are nevertheless a few notable EU instruments that are relevant for the security-of-supply sector, even in the broadest sense of the term. First, it is possible to highlight the EU's energy strategy, *Energy 2020*, which aims to safeguard European security of energy supply and develop an internal energy market in the EU zone. Another example is the European Programme for Critical Infrastructure Protection (EPCIP) and the related European critical infrastructures directive (2008/114/EC), which aim to support member states in securing their critical national infrastructure. EU actions in other policy fields, such as in agriculture and trade, aim to support the general stability of the operating environment and simplify access to the European internal market, thus also supporting the task of safeguarding the overall security of supply in the member states. The potentially increasing European integration and cooperation in the field of defence, such as the work carried out in the European Defence Agency (EDA), is relevant also from the security-of-supply perspective. Finland, as a militarily non-aligned (i.e. non-NATO) country, has traditionally supported the development of the EU's Common Security and Defence Policy (CSDP), and aims to develop its civilian capabilities to be able to function in accordance with the spirit of the EU's solidarity clause (TFEU 222).



Bilateral arrangements are also important in international security-of-supply cooperation. Finland has bilateral agreements with Sweden (1992) and Norway (2005) on security-of-supply cooperation in crisis situations. Other relevant multilateral agreements include the Nordic agreement on defence industry and security-of-supply cooperation (2001) and the Nordic framework agreement on preparing for the threats of ABC weapons in the field of healthcare (2002). Through the Agreement on an International Energy Programme, initially signed in 1974 by the OECD member states, Finland has joined the international preparedness system that aims to protect against disruptions in international energy supply. From the Finnish point of view, the most important part of the system is the oil distribution mechanism, which was created to ensure the availability of oil during a supply disruption or crisis. All these arrangements illustrate the importance of international, political co-operation in safeguarding the national security of supply.

Last, though by no means least, it is important to highlight *the importance of politico-strategic thought to future security of supply in Finland*. One important question is related to the geopolitical imagination itself: how to understand the geopolitical reality in which Finland, or in fact any nation, is compelled to exist and operate today? In this report, we have argued in favour of an approach in which the traditional geopolitical reality of territorial sovereign states ought to be complemented with recognition of the importance of various flows and the spaces that enable them, most notably the global commons. This entails that states or their territory do not disappear or become irrelevant, but become re-contextualized in a new and more complex framework: territorial states remain key nodes in an increasingly networked and flowing world, not least due to their role as facilitators and securers of flows. At the same time, some states seek and are able to aggregate more connections, and to establish, maintain and secure key flows, making the world of global flows hierarchical. The United States, for example, is the key node of various cyber, financial, and informational flows, and it has had the ability to leverage and maintain global flows through its military, economic and political power, including the ability to negotiate standards and regimes for flow practices.

As states are likely to remain significant (even if not the only nodes in the world of flows), another important geostrategic question is related to future scenarios of state power. This more traditional question remains critical as agreeing on shared standards and practices

may be increasingly challenging if the projections of geopolitical multi-polarization due to the “rise of the rest” – a truly post-American “no one’s world” (Kupchan 2012) or a “G-Zero World” (Bremmer and Roubhini 2011) – in combination with intensifying resource competition due to rising living standards and increasing global resource scarcity, as well as unevenly distributed security challenges stemming from the diverse effects of climate change (IPCC 2014) are all realized in full. Despite the global interdependency among states and non-state actors, this scenario suggests that the future may witness increasing political competition over the control of global flows and flow practices (e.g. maritime flows in the South China Sea or digital flows in the cyber domain), as well as geo-economic competition over essential hubs in the global flow network, and over critical resources in the absence of global leadership. More broadly, this potential scenario for the world of flows suggests that competition will lead to a failure in US-pioneered global governance, a rise in protectionism, and an increase in the importance of unilateral/regional constellations and networks, instead of growing global interconnectedness under the protective umbrella of a global hegemon, such as the US. This might have severe negative impacts on the freedom and stability of the global flows, and thus also on the contemporary Finnish security of supply, which depends on the free and assured flow of goods, finance, information and people.

However, others suggest that this post-hegemonic scenario is not set in stone. For example, some recent observations have highlighted the growing fragility of various rising powers, such as Brazil, Russia, and China, as their economic fundamentals appear increasingly uncertain and future prospects more volatile. China, for example, faces a number of challenges to its own economic growth – and thus to its overall rise in the global hierarchy – which include rising wages, increasingly expensive currency, a shrinking workforce, an aging population, the negative impacts of climate change, high levels of pollution, inadequate (e.g. in the cyber domain) and deteriorating (e.g. due to pollution) infrastructure, government interference, and competition from other emerging markets (e.g. as alternative locations for future hubs of the manufacturing industry). At the same time, at least some of the US economic fundamentals, such as domestic manufacturing, energy supply, and infrastructure investments, appear to be reviving, and the US continues to maintain advantages with its trained and productive workforce, demographic distribution, digital and telecommunications technology and, more broadly, in the research and development

needed for innovation (e.g. van Agtmael 2012; Mossavar-Rahmani and Minovi 2013).<sup>72</sup>

In the broader perspective, some experts go on to argue that the US has managed to retain an advantage in various forms of national power – a fact that is likely to sustain its leadership and strategic advantage, as opposed to illustrating its inevitable decline. For example, US universities and think-tanks lead the global production of knowledge; US cyber power appears to be significantly ahead of its competitors; US military power remains superior both in quantity and quality (e.g. in terms of next-generation technologies, such as unmanned systems, robotics and lasers); US soft power in the form of cultural influence has yet to meet its match; and the US has remained the key player – even if recently a somewhat reluctant one<sup>73</sup> – in marshalling international coalitions of the willing in times of crises (e.g. Ratner and Wright 2013). Furthermore, and to reiterate, it is also argued that new politico-economic initiatives, such as the Transatlantic Trade and Investment Partnership (TTIP) between the US and the EU, and the Trans-Pacific Partnership (TPP) in the Asia-Pacific theatre, could revise the liberal politico-economic order and US hegemony in it – and effectively oblige rising powers, as well as the Global South, to acquiesce to both in order to gain access to Western markets (van Ham 2013).<sup>74</sup>

72 van Agtmael (2012), the coiner of the term “emerging markets” in the early 1980s, argues that “[a] few years ago there was a widespread feeling that the developed world had fallen off its pedestal – that Asia had not only escaped the global financial crisis but that its system was somehow superior. That overconfidence seems gone now. Instead there is a sense of vulnerability”. At the same time, he observes, “the despair and fear felt by many in the United States is misplaced. In fact, there are early signs that the United States may be regaining some of its lost competitiveness in manufacturing and that China is losing some ground, especially against other emerging markets” (ibid.).

73 This reluctance is not an uncommon aspect of US foreign policy. As Keck (2014) has pointed out, the US showed great reluctance in collective security arrangements in the post-World War II Europe that would tie the US to the European continent: “[f]ollowing WWII, the U.S. rapidly demobilized its forces and began withdrawing them from Europe. It fought tooth and nail against being involved in a collective security organization like NATO as one might expect a regional hegemon to do. As such, the U.S. initially pursued bilateral and ad-hoc security arrangements”. In particular, continues Keck, the US “pushed the Western European nations to form a tighter collective security organization from which Washington would be excluded. The hope was that these states would be able to defend Western Europe from the Soviet threat without the assistance of the United States”.

74 There are two notable risks involved in this: first, if TTIP negotiations fail, it will be a public failure that is likely to undermine the very notion of a transatlantic community and a broadly unified West, with repercussions in other fields of political life, too. Secondly, these initiatives may also lead to a counter-reaction in the form of increased and unified co-operation among the rising powers and the Global South, e.g. resulting in a “unified anti-Western BRIC-bloc” (van Ham 2013, 6).

Consequently, it has been suggested that a more likely scenario comes close to what has been called “liberal internationalism 2.5” (Ikenberry 2009, 81–3). This would amount to a reformed liberal hegemonic order in which the US would seek to renegotiate and renew the bargains and institutions of the post-World War II decades, but would also maintain its position as hegemonic leader and the central node in the networks and flow structures that are most important in advancing its interests. It would also continue to provide or guarantee at least some key functional services – that is, global public goods, such as the free and open global commons – for the wider system and, in return, other countries would acquiesce to the standards, rules and institutions that sustain it. The world order would remain hierarchical, but the terms of the hierarchy – the bargains and rules – would be reworked to accommodate the wishes of the more powerful rising powers within the order so that they would be acceptable to them. In this reformed liberal order, the US might give up some of its hegemonic rights and privileges, but would retain others: for example, it might share authority with rising powers in the economic and political realms, but seek to secure its hegemonic position in the security realm.

How all this will eventually play out remains somewhat uncertain, of course, but at the very least it is possible to claim that the notion of the inevitable rise of new great powers, let alone a new superpower (i.e. China), is becoming suspect, as perhaps is their ability in the long term to truly challenge the existing liberal world order – to usher in a truly post-American world of regional constellations and networks of flows in most sectors of politico-economic life. Whatever the case, this kind of grand strategic reflection and analysis is increasingly important when pondering not only the relative weight of key nodes in the future world order and its structures of global flows, but also the Finnish positioning within that potential world order and its flow structures.

*The different considerations above – ranging from domestic security-of-supply activity all the way to politico-strategic analysis – illustrate the scope of the emerging Finnish security-of-supply paradigm.* In any case, perhaps the key defining features of the contemporary preparedness planning in a small state like Finland are, first, the systematic whole of government effort to influence politico-economic conditions in order to facilitate domestic and international economic stability and private sector innovation and investment; and secondly, to provide global and national resilience in the face of expected and unexpected disturbances that may jeopardize the steady functioning of society, as well as the stability of global interactions and flows.

Finnish preparedness planning and security-of-supply practices exemplify these features in an increasing manner. With regard to resilience, in particular, the general idea of the concept is the ability to quickly revert to a functioning state after external and typically unanticipated shocks. According to an influential international definition, resilience refers to “the capacity of a system, society, community or society potentially exposed to hazard, to adapt by resisting or changing in order to reach and maintain an acceptable level of functioning and structure” (UN 2004). In the age of global flows, an advanced society like Finland is expected to be able to “take hits” that may arise from a myriad of domestic and external sources without a complete paralysis of its critical functions. However, as the operating environment is increasingly complex and emergent, potential sources of “hits” – namely potential threats – that may endanger the very functioning of society are understood to be so manifold and multifaceted that it is practically impossible to guarantee the resilience of all key national functions and infrastructures under all circumstances. This calls for prioritization of the most critical assets and functions of society that need to be either secured or made resilient – for example through back-up systems or solutions – under *all* conditions.

In some cases, such as the cyber domain, this may be increasingly difficult. This is due to multiple factors, including the fact that the cyber domain is to a large extent owned and operated by multinational companies and (in)secured by various agencies of foreign powers whose willingness to work with Finnish authorities is limited in the case of a cyber-disruption (e.g. a failure in internet services). It is also likely that the most critical cyber assets and capabilities are likely to remain outside the Finnish territory and control in the foreseeable future.

Of course, the emerging new security-of-supply paradigm with its focus on economic robustness and resilience has its own inherent problems. One obvious political challenge in this respect is the possibility of democratic deficit. To the extent that security of supply is an ongoing activity of continuity management that recognizes the critical role of private sector actors, and particularly private businesses, it is possible to argue that there is a risk that public-private co-operation that aims at establishing favourable conditions for critical businesses will prioritize the interests of a certain segment of the private sector at the expense of other, perhaps more representative interests among other segments (e.g. labour, citizens). In the long run, this might be counter-productive in terms of social and economic stability.

Another political challenge is related to the discourse of adaptation and resilience. On the one hand, the growing emphasis on resilience and adaptation may foster a certain kind of political subjectivity and rationale in decision-making that is/are ultimately limited in nature. In particular, there is the risk that the onus of (democratic) decision-making escapes any form of transformative political consideration and instead becomes a managerial practice that relies on the language of necessity and adaptation. For example, instead of transformative political questions, such as “How should the global economy be reformed to prevent or minimize global economic crises and their negative impacts in the future?” or “How should the existing neoliberal economic model and consumerist forms of life be transformed in a way that would contribute to the prevention of the (full realization of) anthropogenic climate change and its negative consequences?” we might be left with more limited questions, such as “How to best adapt to global economic crises or global climate change, and their negative impacts?”.

Of course, posing big transformative questions and related political agendas is challenging to begin with, and doubly so for a small state like Finland with limited influence in global affairs coupled with significant dependencies on external circulations, as well as on more powerful actors. In terms of the latter, in particular, it is hardly surprising that Finland is practically totally dependent on Russia and her energy giant, Gazprom, in the natural gas sector, and advancing agendas that are likely to undermine key sources of income for Russia (hydrocarbon extraction and export) in the name of, say, carbon-free economy or European energy efficiency is likely to incur costs for Finland in the short or medium term. In the long-term perspective, however, failing to ask transformative questions and push new agendas might become even more costly.

In concluding, following the identification of complex changes in the operating environment, there appears to be a demand to rethink the Finnish political imaginary, not only in terms of the very idea of political space, as we have argued in this report by highlighting the importance of global flows, but also in terms of the very notion of national preparedness and particularly security of supply. The notion is being – and must be – re-conceptualized and re-understood as a practice of continuity management of the whole Finnish society, which can only be – but with limits – safeguarded with integrated national and international efforts by the different sectors of the government and civil society. This entails the growing recognition

that the security-of-supply point of view ought to be integrated “by design” into every policy field, and not only into the work of different security sector actors.

Of course, at the same time, there is also a growing need to identify and, perhaps most importantly, to prioritize the most critical functions of a society that national authorities seek to maintain in *all* conditions, even at the cost of other priorities, and to identify, as far as possible, the range of threats that may compromise them. While it is practically impossible to come up with a comprehensive and accurate description of the global flow system – not least due to the fact that it is a complex, emergent system that transforms over time – efforts at identifying the most critical actors, supply chains and networks are likely to yield benefits, particularly if the effort is ongoing. Situational awareness of critical IT, as well as energy and logistics systems, are identified as a high priority in this regard (EVPHT/P 2013, 6).

In sum, the overall security-of-supply paradigm for the age of global flows is likely to entail the following vital tasks: (1) the prioritization of goals due to the inability to secure all critical infrastructures and functions; (2) international, multi-level cooperation on every relevant governmental and non-governmental platform; (3) national discussion concerning the credibility and future premises of the national security policy solutions and overall operating environment; and (4) national discussion concerning the Finnish political mindset and identity as a nation.





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## 7. Concluding remarks

The underlying theme of the flow-related intellectual tradition – or political imaginary – is anything but contemporary. “Everything flows and nothing stays” is one of the well-known quotes associated with the ancient pre-Socratic philosopher, Heraclitus. Similarly, classical American pragmatists of the 19th and early 20th century, such as William James and John Dewey, emphasized the ideas of “stream of experience” and “stream of life”. These quotes are taken to emphasize the fixedness of flux and motion as the key constant characteristics of human reality. Yet streams, both in the natural and political world, are not always random – they do not flow just anywhere given the natural or socio-political riverbeds where they run. In fact, they tend to follow certain slowly transforming paths, and in doing so, exhibit *both* change and stability.

This FIIA report has aimed to develop new conceptual tools for the strategic analysis of the contemporary world order. It has aimed to broaden and readjust the common political imaginary of how to understand political space. The report has analyzed the shift in global geopolitics from territorial geopolitics towards the geopolitics of flows, and highlighted the importance of the global commons domains (sea, air, space, cyber) in this context. Its special focal point has been the analysis of the maritime domain. This domain, in particular, plays a key role in terms of global flows (e.g. trade, military projection, resources), even if the assured access to, and free use of, the major maritime flow corridors may be increasingly contested.

The report has argued that understanding (geo)political changes in the framework of global and regional interconnectedness and interdependency is likely to grow in importance for national security

in Finland and elsewhere. For example, the emphasis on global flows – and their (in)security – will have implications for the security of supply in energy, resource, information and logistic sectors around the world. This highlights the need for an informed and up-to-date strategic situational awareness vis-à-vis the emerging world of global flows and its trends, transformations and consequences – many of which also call for critical thinking. This also applies to Finland. This report should be approached as an initial step in developing new conceptual tools and a theoretical framework for this analysis.

The report has applied the postulated political ontology of global flows as a theoretical framework for the analysis of the Finnish maritime environment, in broad terms. In this respect, special emphasis was put on the new and opening frontier: the Arctic. The report has concluded that while Arctic geopolitical interests are rising and the region's conflict potential is low, it is likely that it will take at least two decades for the geopolitical stakes to rise to a level that would make the region central to global geopolitics and global flows. Other key regions and topics are likely to remain more important than the Arctic in global politics, at least in the near future. Similarly, due to serious challenges in key sectors, such as maritime transport and hydrocarbon extraction, the Arctic economic boom will probably keep itself waiting, at least for a decade or two. The Baltic Sea region will continue to be the most important maritime region for Finland in the foreseeable future.

The report has also highlighted that (perceptions of) global interconnectedness and interdependency are increasingly affecting the Finnish preparedness planning – both defence policy-wise as well as in relation to the overall security of supply. The report has argued that Finland's national defence has essential international enablers without which credible national defence capability is seen to be impossible to maintain, and that self-sufficient national preparedness and especially security-of-supply actions by national authorities are considered to be increasingly difficult in the age of global flows.

Looking to the future, it is important to note that the Finnish maritime domain is not about ships and water alone. It is about increasingly complex human activities with different implications for Finnish security and prosperity in general, and security of supply in particular. In several ways, these activities are transnational and rely on global flows. The actors themselves are often multinational corporations. The activities are, by definition, cross-border trade related. Furthermore, the Finnish maritime domain as a context

conducts information and resources that are not tied to the container ships. The activities are inter-domain, in other words highly integrated into the existence of space-dependent navigation and a cyber-based inventory – as well as other critical systems.<sup>75</sup>

It is vital to note that being integrated into the global flows poses not only opportunities, but also threats. As an example, while having no Arctic Ocean coastline, Finland, situated between the opening Arctic Ocean and the strongly trafficked and economically significant Baltic Sea, has the potential to increase its importance as a facilitator of global logistics and data flows, for example, if the announced plans for new railway connections in the Arctic Ocean-Baltic Sea nexus and new datacentres and data-cable connections were to materialize. However, at the moment, the northern railway corridor to the Arctic Ocean lacks economic rationale. Lapland's mining industry does not produce in large enough volumes to compensate for the costs of major railway investment, and there is no indication that Finland could be a major logistic transition route between the Arctic Ocean and mainland Europe (see LOGHU3 2011, 28; KLTP 2013; JBTP 2013). Also, the security-of-supply element in the railway consideration seems dubious, since the heart of the Finnish logistics system is situated in the Helsinki metropolitan area (KH 2010), and the northern railway corridor could not substitute for the Baltic Sea route in big enough volumes and remain undisrupted in a major crisis scenario. Thus, there is no indication that the Finnish geopolitical positioning would change considerably in the near future due to these factors.

If, on the other hand, the planned data-cable connection linking Europe and Asia through the Northern Sea Route materialized, Finland could increase its geopolitical relevance. This would be the case only if the planned data-cable connection from Finland to Germany

75 When analyzing the future maritime trajectories, it is worth remembering that the maritime domain does not exist in isolation from the technological and economic transformations. Any stovepipe view of the maritime domain may run the risk of being misleading about the overall direction of change. Other global commons capabilities and assets influence the strategic meaning of maritime flows. Furthermore, the scope of movements has also broadened. In addition to people and goods, the maritime fibre-optic networks are transferring digital information. Cyber is present also in the way ships and their cargo can be exchanged while at sea. The navigation is based on digital and space technologies. The logistic and surveillance systems have changed the way in which the maritime areas are regulated. It should also be pointed out that different maritime areas are differentially impacted by the ongoing technological, economic, and climate-related changes. The Baltic Sea is often used as an example of a maritime area where different advanced technologies and systems are used.

materialized, and Finland could attract more datacentre and cloud computing services. In this case, Finland could play some role in the global data flows as a relevant connector. However, one should note that while the new connections could increase the diversification and resilience of the Finnish data connections, the increased role as a major connector would also increase Finland's relevance as a strategic target.

Following on from this, in conclusion, the report highlights two contending scenarios as a starting point for future research:

1. Security as defence
2. Security as resilience

Although the second scenario appears to represent a rational strategy of diversification, it can pose a security risk from the perspective of the first scenario. When Finland turns itself into a connector (in the inter-domain sense of the word), it exposes itself as a strategic target – in the same way that the Suez Canal can constitute a problem.

The scenarios are partially contradictory. That which in the first makes Finland important as a cross-roads, in the second turns Finland into a difficult to manage cross-current. However, there is a detectable trend away from the first scenario towards the second. This is caused by the flows. The business models of production (goods, materials), finance (capital), knowledge (information and innovation), and security (military and societal) are increasingly interdependent and dynamic. So it increasingly makes sense for Finland to adopt the second resilience scenario in order to make it attractive for the flows. But, this leads to increasing geopolitical and geo-economic insecurity in terms of the first security scenario.

So, what is the most advantageous Finnish solution to the global challenges? How does this strategy relate to the maritime contexts? Is this adaptive schema applicable in the case of other small states or even bigger states? Agility is seen as a virtue for small states, which are relatively more dependent on global inter-linkages due to their more specialized economies. At the same time, there are demands for resilience and societal stability as the differentially exposed small states face the cumulative and potentially disruptive effects of global circulations. This, needless to say, poses pressing challenges for any self-confessed democratic polis, Finland included. That said, as some regions and sub-regions become linked to the global flows, the political geography will change significantly. These “privileged” places will become re-contextualized as parts of the emerging global hub-and-spoke structure, rather than of their traditional national or regional context. More research is needed in order to better understand the

contemporary geopolitics of flows and their potential implications for the global order as well as Finnish security, prosperity and security of supply. In many respects, theoretical, empirical and critical work remains to be done.





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# Towards the Geopolitics of Flows

## *Implications for Finland*

Mika Aaltola, Juha Käpylä, Harri Mikkola & Timo Behr

Geopolitics is increasingly defined by the strengthening force of stable and secure global flows of goods, resources, finance, people and information. These flows rely on and use the various common domains: the high seas, airspace, space and cyberspace. This report highlights a shift away from territorial geopolitics towards the geopolitics of global flows and global commons, and analyzes the implications of this geopolitical transformation to Finland.

Stemming from this framework, the report analyzes the transforming global maritime domain with the particular focus on the Finnish maritime proximity in the Arctic. The report concludes with an analysis on the possibilities of Finnish national preparedness planning in the world of global flows. The report argues that understanding (geo)political changes in the framework of global and regional interconnectedness is likely to become increasingly vital for overall national security. As Finland is likely to be increasingly dependent on global flows, autonomous and self-sufficient national preparedness and especially security of supply actions by national authorities are considered to be increasingly difficult.

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