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# Arctic States' Strategies

How to Defend the Arctic Market

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# Abstract

To defend a market, the acting firms need defence strategies. The eight Arctic States have all published their own national strategic document for the Arctic region. In the Strategies they describe how they will act in this Arctic market. The Arctic is an area undergoing a change. With the last decades of melting ices as a result of the increased global warming, the Arctic is a more available region to explore and exploit for stakeholders.

Defence strategies are used by firms to strengthen and defend their positions and interests in a market. In this study the theory and strategies that are used are collected from Ehrmann *et al.* They are the deterrence strategy, shakeout strategy and “take the money and run” strategy. To make the analysis of the Arctic States use of defence strategies more comprehensible the study is divided into three areas: *environment, economy and security*.

The result shows that according to the conditions, such as the predicted lifecycle of products, age of market, number of competitors and the phase they are in (pre- or post-entry phase) the most common is the deterrence strategy followed by the shakeout strategy.

Despite its northerly position the Arctic is a hot topic.

*Key words:* The Arctic, Arctic States, Arctic Strategies, Defence strategies, Deterrence, Shakeout

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# 1 Introduction

Despite its northern exposure the Arctic region is a hot topic. There are various interests, issues, challenges, possibilities and opportunities in the region: economic, environmental, security and scientific. There are eight States situated in the Arctic (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and USA). All have created, published and adopted an Arctic Strategy (or as in the case of Iceland a policy) which gives their visions and views of the Arctic. The Arctic Strategies outline the Arctic States' interest in the Arctic, such as shorter shipping routes and undiscovered natural resources. The study and analysis of the official Strategies is of interest because it allows the possibility of drawing conclusions as to what the Arctic States' attitudes, actions and positions may be, in what is sometimes called the "Race for the Arctic" (Spiegel Online International, July 27, 2014).

Throughout the study I will use the term "Arctic Strategies" or "Strategies" to describe the Arctic States' Strategy-documents for the Arctic region and "defence strategies" or "strategies" as a generic term for the deterrence, shakeout and "take the money and run" defence strategies. To simplify, I will distinguish the capital "S" and the small "s".

The subject of this study is the Arctic Strategies and the use and presence of defence strategies within them. The idea to use defence strategies as a geopolitical tool in the study of the Strategies is taken from Thomas Ehrmann, Andreas Fürst, Christian Homburg and Eugen Scheinker who in their article "*Incumbents' defense strategies: a comparison of deterrence and shakeout based on evolutionary game theory*" published in the *Journal of the Academy of Marketing Science* 2013, look at incumbent firms' use of defence strategies on an economic market to defend and strengthen their positions. I am analyzing the Arctic Strategies to determine whether they include defence strategies and if it is able to look at the Arctic States activities in a business economics perspective.

I am applying this theoretical framework, taken from the business economic perspective with firms acting on a market, to the Arctic region as the market and the Arctic States as the firms. The Strategies are the official documents which the governments of the Arctic States have published for public perusal, and this is why I am using them. It is not my intention to detect any hidden agendas or secret plans that the states may have for the region or present a generalizabel result that explain how States act in the geopolitical context globally, but rather to look at these public documents to see what attitudes and visions the states present.

I believe reluctance to use interdisciplinary research methods may sometimes inhibit the development of political science research. In the case of this study I think the application of a business economic theory of defence strategies in a political scientific context – describing strategies used by States – lends the

analysis an interesting dimension. There are similarities between the subjects of political science and business economy which connect them and enable them to be mutually enriching. I am using the theory to demonstrate that it is possible to draw conclusions from other research areas in a way which widens the use of theories and opens up for possibilities in explaining the phenomena's and processes. The interdisciplinary method decreases the barriers that might be found between different disciplines of research (Sandström *et al.* 2005:15 *f.*).

This is the first time that the Arctic Strategies are studied in this way using business economic defence strategies as the starting point for the study. It give the geopolitical study a new perspective when adding a new theoretical way of looking at the actions, positions and plans to a political science area as the intergovernmental. There has been earlier research performed by Robert Axelrod which inspired this study, where Axelrod asked the question through his book *The Evolution of Cooperation* (1984): "When should a person cooperate, and when should a person be selfish, in an ongoing interaction with another person?" (Axelrod 1984:vii). This idea can be applied to the Arctic States and the way in which they present their Strategies for the region. This has been in the back of my mind throughout the study. Despite Axelrod usage of the prisoner's dilemma in his study, there are similarities in this study of how the Arctic States use defence strategies in declaring their position in the Arctic. Another researcher who has studied defence strategies, and how firms use them to defend and strengthen their position in the market, is Michael E Porter with his book *Competitive Advantage – Creating and Sustaining Superior Performance* (Porter 2004).

It is of interest to study how the Arctic States take a stand in this region undergoing changes. This is relevant due to the environmental challenges that take place in the sensitive Arctic region. The importance of preserving the environment whilst developing sustainable economic factors such as increased trade and tourism must be mentioned. The area is potentially one of the richest existing reserves of natural resources and the importance of security factors can therefore not be overestimated. What makes the study even more interesting is the use of defence strategies on a "market" where the "firms" are defined. There are only eight Arctic States who have a geographical right to the Arctic region, but the Arctic Strategies which the states present are not only of interest to the Arctic States, but also to other states, organisations and actors interested in the region including researchers and private actors. The value in the study of the Arctic Strategies is to create an idea of how the predicted increased activity in the Arctic will play out.

## 1.1 Definitions

The study is made through the analysis of the Arctic States Strategies and the use of defence strategies in them. The theoretical framework is collected from firms' use of defence strategies on a market. In this study this has been transformed so

that I use the Arctic States as the “firms” and the Arctic region as the “market” in an intergovernmental area.

A *firm* can be defined as an actor on the market, or “a number of persons regarded as associated for the promotion of their common interest. Also used gen. of a group of persons working together” (Oxford English Dictionary 2014a).

I use the definition of *market* as presented in Robert H. Frank’s *Microeconomics and Behaviour* (2005): “[a] market consists of the buyers and sellers of good or service”. In the case of Arctic that is both resources and services as logistics.

There are two types of *competitors* that can attack the market. It is new entrants to the market and already established competitors that seek to reposition themselves (Ehrmann *et al.* 2013:185). These competitors could either be other Arctic States or Arctic States’ companies, as external States or companies.

*Defence strategies* are the strategies that actors use when on a market to defend, strengthen and position themselves. It is either to prevent competitors from entering or making them leave (Ehrmann *et al.* 2013:185). There are several defence strategies, but in this study I have chosen to look for three of them; deterrence strategy, shakeout strategy and “take the money and run”. The defence strategies are defined below in section 2.2.

## 1.2 Research Problem

The Arctic is a fragile region that is undergoing change. The years between 2005 and 2010 saw the greatest recorded amount of ice melt and the effects on the world’s climate globally are a reality (AMAP 2011:V). One major reason as to why the Arctic can now be exploited and developed is due to global warming. The Climate change causes the ice to melt and the accessibility to the region as well as the possibility for the Arctic States to act increase (*Ibid* 2011:51).

Thanks to the environmental changes in the Arctic make it an area where it is an ongoing development, and it is not just the environment that is affected, but also other areas such as economy and security. Earlier research has been done about the Arctic region and what to expect from the Arctic States. Olav Schram Stokke discuss in his article *Environmental Security in the Arctic –The case for multilevel governance* (2011) the topic of the consequences when the environment in the Arctic changes. Stokke argues that the transforming environment might lead to international conflicts, but believe that it will not happen since the Arctic States follow the international laws such as the law of sea convention. That is balancing the “coastal-states demands for control over natural resources and maritime-state request for unrestricted navigation” (Stokke 2011:840), but the Arctic States has adapted to the international legal framework, even though they are still eager to be in control of the Arctic area and that the development follows their interest (*Ibid* 2011:836). A way for the Arctic States to do that is by sending out signals through the use of defence strategies.

Stokke also present that there is a connection between the areas of environment, security and economic exploitation and development that is now possible due to the melting ice and changing environment (Stokke 2011:835).

The environment is however not the only area affected by the Arctic Strategies, but it is the condition that make the Arctic region able to exploit. Through the study I would like to show that the Arctic is a region where it is a developing spirit, and with that an ongoing positioning by the Arctic States in the different areas. Thus, the aim with the study is to look at the Arctic Strategies and describe the positioning, actions and plans that the Arctic States present through a hermeneutic text analysis of the official and public Arctic Strategies published by the Arctic States. With the following proposed research question as the base for the study I will look for the answer:

How do the Arctic States conduct themselves, and how can their actions and attitudes be understood toward the Arctic region?

In order to answer the research question I complete a qualitative explanatory case study of the eight Arctic States Strategies for the Arctic region. I believe this research question to be of interest as it can help reveal the positions that the Arctic States take and have toward the Arctic region and the use of a new perspective with a business economics theory in a political science area will give the opportunity to draw conclusions and understandings from a different theoretical discipline. In this thesis the chosen theory will be applied in a new manner and in doing this I will address how the Arctic States formulate their agenda for the Arctic region.

### 1.3 Disposition

This thesis is structured as follows:

A presentation of the used material and a short discussion about the methodology in the thesis, thereafter a description of the applied theory and a discussion of the use of a business economics theory in a political science study follow. After a description of the Arctic, the conditions of the Arctic States and the Arctic region there will be a description of the environmental change that has occurred in the last decades and what this has meant for the Arctic region and the Arctic States follows and there here will also be a discussion of earlier studies and what to expect from the analysis in the section about the Arctic conditions. Lastly, the analysis of the eight Arctic Strategies using the chosen theory is presented.

Finally, the conclusions and results of the study will be presented and discussed as well as some thoughts on possible future research in the same area.



## 1.4 Material

The empirical material I am using to answer my research question is written material consisting of the Arctic Strategies published by the Arctic States. I intend using this material because I am interested in the way the Arctic States envision and present their own role in the Arctic through defence strategies. The material is chosen because it is the official material, open and accessible to the public, it demonstrates what message the Arctic States themselves would like to convey. The material has similar background and is of comparable nature. It is not in my interest to look at secondary material and interpretations of the Arctic Strategies in the empirical analysis since my analysis is of the primary material, but, I have looked at material presented by scholars to get a perception of what their opinions of the Arctic look like.

I have used the Arctic Council's website to compile seven out of eight Arctic Strategies ([www.arctic-council.org](http://www.arctic-council.org), March 9, 2014). The exception is the Russian Arctic Strategy which I received directly from the Russian embassy in Stockholm as it was necessary for the document to be translated into English. I am using the latest available versions of the Arctic documents (09.03.2014).

The Arctic Council is a good source of the Strategies as all the Arctic States are members of the Council ([www.arctic-council.org](http://www.arctic-council.org), August 5, 2014), which works as a hub for the Arctic States to connect and work together with the issues involving the Arctic region. The Arctic Council was established in 1996 by the Ottawa Declaration, and is an intergovernmental forum which provides means for interaction, cooperation and coordination between the Arctic States. This is carried out with the involvement of the Permanent Participants, these being the six Arctic indigenous communities and other groups of Arctic inhabitants on issues that are common to the Arctic States. Twelve non-arctic countries, nine intergovernmental and inter-parliamentary organisations plus eleven non-governmental organisations are admitted as observers to the Arctic Council ([www.arctic-council.org](http://www.arctic-council.org), May 12, 2014). The main questions handled by the Arctic Council are those of environmental protection and sustainable development in the Arctic. The Council's mandate explicitly excludes issues of military security (*Ibid*, April 4, 2014).

I also use studies from other scholars (Stokke, Lasserre, Le Roy, Rutherford, Garon, Ruel etc.) to look at their results and if it is possible to find similarities to my study. They have all studied and analysed the Arctic through different areas. The areas that they have looked at are divided into three; *environment*, *security* and *economy*. These areas are interconnected and none of them can be affected without influencing one or both of the other areas. I also focus on the three defined areas which allows for an understanding of the use of defence strategies. It will also be possible to identify whether the Arctic States use different approaches in each area, i.e. use different defence strategies or if they are consequent in their use of defence strategies. It also makes the study easier to compile.

The material for the use of method in this thesis is taken mainly from Swedish scholars – *Att fråga och att svara* by Teorell and Svensson (2007), *Textens mening och makt* by Bergström and Boréus (ed.) (2005), *Metodpraktikan* by Esaiasson, Gilljam, Oscarsson and Wägerud (2007), *Det vetenskapliga studiet av politik* by Lundquist (1993) – but also from *Theory and Methods in Political Science* by Marsh and Stoker (ed.) (2002).

The theoretical framework of this study is based on the business economic article *Incumbents' defense strategies: a comparison of deterrence and shakeout strategy based on evolutionary game theory* by Ehrmann *et al.* (2013). The topic of this study is “firms” behaviour in a “market”, and how they defend their interests thereon.

The theory is based on an evolutionary game theory taken mainly from the conclusions drawn in the article mentioned above, but also from Robert Axelrod's book *Från konflikt till samverkan – Varför egoister samarbetar* [*The Evolution of Cooperation*] from 1987.

The theories of *Competitive Advantage -Creating and Sustaining Superior Performance* (2004), by Michael E Porter, one of the leading authorities on competitive strategy and international competitiveness are used for the purpose of understanding firms' use of defence strategies on a market. Porter discusses how the use of defence strategies, mainly deterrence strategy and “take the money and run” strategy, can give competitive advantages toward competitors and when to use the defence strategies.

## 1.5 Method

In the study the method of science that I have chosen to use to complete the analysis is a hermeneutic text analysis. The analysis of the empirical material is an interpretation and the method of interpreting the material is hermeneutic, meaning the study of understanding. The objective of this kind of analysis is to understand the meaning and purpose of the material (Teorell – Svensson 2007:98 *f.*).

The hermeneutics say that there is no absolute law that is applicable to all societies and epochs. The social phenomenon is a part of the total and there is a difference between the absolute results in the natural science and the political science (Lundquist 1993:73). All statements have individual effect on the individuals; there is no sense to use standardised questionnaires when completing a study. There is strive for understanding and there is no difference between facts and value judgements, but there are no neutral facts in the hermeneutics (Lundquist 1993:41 *f.*). Hermeneutics differ from positivism in the sense that the logic explanation using control-groups and the result either confirm or reject the hypotheses that are pre-set and the method of using experiments as ideal. It is adapted to quantitative studies where statistics is an important technique. Positivism also tries to explain the “reality” with the idea that the society and nature are the same. In positivism there is no room for personality and values (Lundquist 1993:42).

With the use of hermeneutics text analysis the ambition of the study is not to give the reader the “truth”, but a comprehending case study using the Arctic States Strategies to understand the use of defence strategies. Together with the ontological position of relativism and epistemological position of interactive subjectivism, i.e. that reality is a mental construction depending on the observer (Lundquist 1993:67 *f.*) and not like the realist, who would state that there is a reality independent of the observer and determined by regularities.

The interactive subjective epistemology together with the relativistic ontology means that it is the observer’s values that characterize the knowledge. Every individual observer is able to have their own picture. It is the researcher together with the studied material that forms a unit and the fact is the result of the interaction between them. Therefore it is not meaningful to talk about objectivism in this hermeneutic study (Lundquist 1993:68).

The use of theory in this study is in an inductive, theory-explorative model. It is used to explore and understand the theoretical idea behind the use of defence strategies in the empirical material. The inductive idea is to explain from the studied material, in this study the Arctic Strategies and the use of defence strategies. If there are possibilities to draw conclusions from the analysis of the material and explain if there is a more general causal relationship between the three areas: environment, economy and security that can tell if/why different defence strategies are used (Bjereld *et al.* 2002:88ff.).

## 1.6 Research Design

The design of this study is a qualitative explanatory case study of the eight Arctic States Arctic Strategies to understand the meaning and purpose of the usage of defence strategies. It is a hermeneutic text analysis that will utilize the qualitative data from the analysis of the Strategies (Lundquist 1993:104).

The case study is “the attempt to understand a particular person, institution, society, etc., by assembling information about his or its development; the record of such an attempt” (Oxford English Dictionary 2014b). A case is the unit that is studied to answer the research question, and it can be anything from individuals, to linguistic units such as words, meanings or speeches, to geographical positions like a city, region or country, but also an institution or organization (Esaiasson *et al.* 2007:51),

In this study the cases are the Arctic Strategies and the study is the use of defence strategies in them. It is an explanatory case study that will try to understand and explain if there are causal relationships between the areas analysed in the Strategies and the use of defence strategies. What causal reasons that might explain the mechanisms behind, and if there are differences to find. The study is a qualitative study, mainly since the empirical material used are qualitative data. It also tells that it is a qualitative hermeneutic text analysis done rather than a quantitative positivistic analysis of data in a statistical data matrix.

## 1.7 Validity and Reliability

The study is a hermeneutic study, and as for all the sciences the level of validity and reliability is important to maintain a high level of operationalization (Bjereld *et al.* 2002:112 *f.*). The level of *validity* depends on whether the study measures what it is supposed to measure, in this thesis it is the interpretation of how the Arctic States use defence strategies in their Arctic Strategies. To use the Arctic Strategies as the research material according to the theoretical conclusions which are presented by Ehrmann *et al.* in the description what to look for ensure this study is valid (Bergström – Boréus 2005:34) and it increase the possibility to repeat the study.

The use of the official Arctic Strategies as material is a limited area at the outset which in turn decreases the possibility of misusing the material. This in turn reduce the risk that choices regarding what material to use has an effect to the outcome of the study, something that could reduce the validity of the study (Teorell – Svensson 2007:58).

A high level of validity is not enough sufficient to present a scientifically correct study there must also be a level of *reliability*. To have ensured reliability in the study is to be accurate in what is studied and to decrease the level of errors. To apply the theory in the same way to all of the material, i.e. to perform the analyse of the material in the same way gives reliability, even though it is not meaningful to talk about objectivity when it comes to the epistemology of subjectivity in the hermeneutics (Esaiasson *et al.* 2007:70 *f.*).

A test of reliability of a study can be done if the same empirical material is given to another researcher and the study is repeated resulting in a similar result. With this study it would be possible to test the reliability of the conclusions by independently analysing the same material, the Arctic Strategies, granting that the same theory of defence strategies is used as presented by Ehrmann *et al.* If this leads to similar conclusions as those presented below a high level of reliability and intersubjectivity is reached (Lundquist 1993:52).

## 1.8 Demarcation

To complete this study a level of demarcation was carried out. I have chosen the eight Arctic States as the sources of material for my study. There are more actors that are interested in the Arctic and also have activities in the Arctic region: India, China, Singapore, South Korea, Japan, the European Union and the International Monetary Fund to name a few (Wise Pens International 2013:18 *ff.*). There is an interest for the Asian States involvement in the Arctic region and scholars as Stokke (2013) and Blank (2014) have studied the increasing activities. It is primarily the amount of natural resources and the shipping routes that are of interest for the Asian States. The limitation of the study is made to achieve a

balance between using enough actors to be able to understand and draw conclusions, and not using more data than I would be able to analyse properly within the scope of this thesis.

The material for the study is the Arctic Strategies collected from Arctic Council web page. The Strategies are chosen as they are the same type of material to be examined from all the Arctic States. There are other publications made by the governments such as publications from other ministries, but due to the size of this thesis I have chosen to limit the study to the official Arctic Strategies. This is also done because it better allows for drawing conclusions from the documents in an equal way. They are all public and written by the Arctic States themselves.

The areas in the study of the Arctic Strategies which I have chosen are *environment*, *economy* and *security*. I chose these as they describe the three areas which I believe are the most important for the development of the region at all levels. These three areas are also all inter-connected and give a good overview of the issues relevant to the Arctic region. It is also the areas that the other scholars all use in their studies of the Arctic.

There are several defence strategies, but I have chosen three strategies presented by Ehrmann *et al.* (2013): the deterrence, the shakeout and the “take the money and run” strategies. The reason for not using for instance the influencing strategy is because it is difficult to define influence and what it implies. When interpretations are made the level of reliability is lowered. In this study I want to examine how the chosen actors use defence strategies in their Arctic Strategies and monitor the context in relation to the three areas that I look at. I do not aim to chart the influence on the Arctic market that I think will come naturally when the actor carries out its operations.

## 2 Theory

To answer my research question this section presents the theoretical framework of defence strategies and how this can be applied to the Arctic States Strategies. At first there will be a general presentation of the theory that is collected from Ehrmann *et al.* (2013) and the use of it. Then there will be a definition of the three defence strategies chosen for this study: *deterrence strategy*, *shakeout strategy* and “*take the money and run*” strategy. The last part of the section contains an explanation of how the theory is used and applied in this study.

I use a theory of firms’ actions on a market presented in the article by Ehrmann *et al.* (2013). The article addresses the question of how a firm can defend against future or present competitors at its markets and what defence strategies that can be expected by the actors in various situations that may arise (*Ibid* 2013:185). I believe that it is permissible to compare State actors such as the Arctic States to actors on a market that stand in competition to each other. This perspective gives really enlightening insights. It leads away from the idea of States as mere producers of norms and institutions, and towards States as actors that make rules for their own benefit. That tries to make other actors follow those rules also for their own benefit. This creates the ability to look at the Arctic with a new approach still focusing on the intergovernmental perspective, but, with a business economics angle to the analysis and categorization of the use of defence strategies by the Arctic States.

### 2.1 Theoretical Framework

To ask how the Arctic States use defence strategies in their Arctic Strategies the question is if they act similarly to firms on a market. The situation in the Arctic has been analysed before, but this is the first time the Arctic Strategies are looked at from a business economics theoretical perspective. To apply and use this theory is an attempt to connect two disciplines that perhaps is not obvious. It is a way to comprehend the theory and complete a study that not only shows that there are business economics traces in the political science intergovernmental area, but that there are similarities that are able to add to States activities.

With the globalisation taking place a new world order has been presented with new power constellations. It is compared to a complex three dimensional chess game where the activities are both horizontal as vertical. From the top of the chessboard for political-military affairs the military power is largely unipolar with the United States as the only superpower, but on the middle chessboard for economic issues the United States is not a dominant power or empire, they need to

negotiate and are equal to the European States. At the lower chessboard when it comes to relations over borders the actions are done by actors outside the governments, spread in a chaotic way. It is more of a market driven situation where States act like “firms” on the global “market” (Nye, Jr. 2007:350).

The theory that Ehrmann *et al.* presents as their idea point out that “firms” use different defence strategies depending on the situation and the conditions on the “market” to strengthen their position. The different defence strategies that are shown are used according to the competitors and what context they find themselves in. The different conditions on the market show different strategies. In this study I use the same idea as Ehrmann *et al.*, although the theory is a business economic theory. I have modified it and apply it to international relations and geopolitical context. I have transformed the actors and the arena to fit this thesis, the “firms” that act in my study are the eight Arctic States and the “market” they act on is the Arctic region.

Ehrmann *et al.*'s use of defence strategies differs from earlier research in the area since they use an evolutionary game theory as the base for their study. Traditional game theory is more static, the options that the game is built upon allow only a single or specific number of contestants when the decision is taken as to which defence strategy is optimal to implement in the scenario. The use of evolutionary game theory instead of the more traditional game theory does not limit the analysis to only one defence strategy, but it compares and examines multiple defence strategies which the actors may use according the different conditions such as competitor market entry, predicted lifecycle of products, number of competitors and the age of the market all described in section 3.1. A more realistic part of the evolutionary game theory compared to the traditional game theory is the improbable assumption that the actors act perfectly rational and are fully informed decision makers. The evolutionary game theory assumes that the actors only are partially informed, and that that is more suited towards a study of States as the actors are not fully open with their agendas toward the other actors in the market. (Ehrmann *et al.* 2013:186 *f.*).

Evolutionary game theory allows more contests appear in the presence of both current and future competitors. It is also taken into account what choices other actors take (Sîrghi 2013:537 *f.*). This gives the study more realistic influences and the competitors must be aware that the goal is to strive for a long-time survival in the market and there is no definite deadline enforced to the actors in the evolutionary game theory (Ehrmann *et al.* 2013:186).

To use the theory in another discipline, I show that it is possible to draw and make conclusions from other scientific areas and demonstrate the value of being open minded. The biggest problems that humanity face are not structured to be disciplinary though often input is needed from more than one discipline and extends over the disciplinary borders. The interdisciplinary value is that the research incorporates the strengths from different areas and disciplines. There is a value in the use of knowledge to give wider perspectives to the studies made, in this thesis being the business economy and the political science (Diesendorf – Rammelt 2012).

Joe S. Bain presented the traditional game theory in his book *Barriers to new competition* (1956). The idea behind the game theory and the focus in the study is the presentations of the competitor's deterrence and conditions entrants must be aware of before the entry to the market (*Ibid* 1956:1). Bain also highlights the importance of different barriers for competitors to consider before they enter a market, and the consequences which may occur (*Ibid* 1956:167 ff.). The theories are still applicable to the developed evolutionary game theory that is used by Ehrmann *et al.* but since it is affected with a single defence strategy it is narrow in the overall result. Notwithstanding Bain's study about performance and behaviour was dominating the economic thought until the 1980's (Sirghi 2013:534).

A basic prerequisite for human civilization and economic development, says Robert Axelrod, is the factor of collaboration. Axelrod discusses cooperation, and how cooperation can exist in situations with only egoists. The method Axelrod use to study cooperation is by providing fictional competitions – “the prisoner's dilemma” – to ascertain which strategies are the most favourable in a competitive situation. The prisoner's dilemma is a hypothetical scenario related to cooperation used in game theory as originally was created in the 1950's by Merrill Flood, Melvin Drescher and Albert William Tucker and I believe it can also be applied to the Arctic region and the actions taken by the Arctic States (Axelrod 1987:178).

Axelrod asks the question of when cooperation is used, what lies behind it. He presents a range of dilemmas such as trench warfare, marriage, balance of terror, racial hatred, cartels and block politics as examples of situations where cooperation can be a necessary factor to gain as much as possible from the situation (Söderström in Axelrod 1987:7).

The Arctic region is an area with stakeholders that do not have the same interests, hence the single state is most important to maximize the gain. The result from Axelrod's study is that in the long run collaboration is the best, and that reciprocity is an important factor to gain the result from others that are preferred. In the study only two actors challenged each other at the same time, which is the basic idea of traditional game theory (Axelrod 1987:20).

In this study I am using the theory based on evolutionary game theory used by Ehrmann *et al.* whereby several firms act at the same time. Even though there are differences between the choice of game theory there are similarities that can be drawn from the different game theories such as reputation, reciprocity, collaboration, the importance of neighbours and the actions they take (Axelrod 1987:130 ff.).

The value of using theories interdisciplinary is high. Robert Axelrod states that there can be conclusions drawn and used from the evolutionary game theory to disciplines as political science, medicine, evolutionary biology and economy. To complete a study it can be worth to look at other segments of research (Axelrod 2014:83 ff.).



## 2.2 Theoretical Result

According to the ideas presented by Ehrmann *et al.* (2013), conclusions could be drawn as to how the Arctic States address their defence strategies. The Arctic Strategies was analysed with the conditions of the phase the competitors are in, close to enter or in the market, and the predicted lifecycle of the products in the market as well as the number of competitors. If the Arctic States could predict an entry of competitors to the market the choice of what defence strategy to use, deterrence, shakeout and “take the money and run” are different from the situation where the competitor already is in the market. In the pre-entry phase, before competitors have entered the market, the preferred defence strategy is the deterrence strategy and in the post-entry phase, where the competitors has already entered the market the strategy that should be used are the shakeout strategy (Ehrmann *et al.* 2013:187). In the article the focus is on the deterrence strategy and the shakeout strategy but I also look at the use of a third strategy “take the money and run”, mentioned in the Ehrmann *et al.* article, in this study (2013:201). It is the strategy that possible has the greatest impact on the Arctic region because of the nature of the strategy. It is a very short perspective and the aim is only to gain as much as possible for the moment (Porter 2004:511 *f.*).

The use of defence strategies aims to lower the probability of competitors attacking or lessen their intensity. The defence strategy makes the actors’ gain a competitive advantage. Almost all defence strategies require an investment that is why the choice of strategy is important for the actor. The result of the strategy and the processes to implement it tend to vary and be costly (Porter 2004:482). In the decision as to which strategy to use, the knowledge of the other actors in the same market is important to create a strategy which complements as well as being effective (Ehrmann *et al.* 2013:185).

Even though a strategy at first is used in one way, there is a tendency that the defence strategies change and develop as they are used. If, at first, it is presented as a shakeout strategy, it could, if successful, be developed into a deterrence strategy when the competitors are out of the market. The strategy may then make use of the reputation as a barrier that has been built up and is deterring the competitors from entrance. The defence strategies are also able to transform into the third alternative when no other option of defence strategy is viable and the only way to go is “take the money and run” (*Ibid* 2013:200).

The results in Ehrmann *et al.*’s study show that on a general level, neither of the strategies is superior to the other. What instead determine the superiority of one or two of these strategies are the conditions of the market and the probable influence of the competitor. Their study show specifically that a shakeout strategy outperforms a deterrence strategy in a case of medium to short product predicted lifecycle and a probability of competitors influencing to be high or above average. The deterrence strategy is on the other hand superior when it is a rather long predicted lifecycle of products and the probability of competitors influencing is low (*Ibid* 2013:199).

### 2.2.1 Deterrence Strategy

In the pre-entry phase the preferred defence strategy is the deterrence strategy. In an un-established market it is more effective to have a deterrence strategy to protect the market from competitors and to make the best preconditions for the own entrance and establishment. The pre-entry phase can be found in markets that are relatively new, and where there is a lack of established competitors. This is in order to create a situation where the barriers for competitors becomes too high, e.g. it could be too expensive for the competitors or to create a situation whereby the potential benefits are reduced for the competitor to enter the market. The aim of the strategy is to discourage possible competitors to enter the market and in this way make the market as favourable as possible for the others already present or have access to the market (Ehrmann *et al.* 2013:187).

According the predicted lifecycle of products the deterrence strategy is preferred in a market where it is long. The use of strategy is to be aggressive and therefore build up a reputation that competitors are not welcomed and make the market less attractive. There are some examples how to create this situation by limit pricing, announce innovations and presence on the market, block access to resources and sales channels as well as the use of a protectionist approach (Ehrmann *et al.* 2013:187 *ff.*).

Deterrence strategy is likely to reduce the probability of other firms' entry to the market and the strategy is preferred to be used when there are a low number of future or present competitors. To use varying tactics making the market unattractive for competitors it is possible to maintain a market monopoly or oligopoly. The lack of access to the market reduces potential entry to the market for competitors and makes it costly (*Ibid* 2013:189).

When the use of defence strategy is to deter challengers it must be considered that it deliberately reduces the short-term profitability with the aim of securing long-term profitability and the sustainability of a firm's position. Most firms cannot totally eliminate the threat of attacks by competitors. The defender should invest in defensive actions to reduce the threat of an attack to a reasonable level by balancing the cost of defence against the risk of potential entries of competitors (Porter 2004:487 *f.*).

There have been other studies in political science which have used the deterrence strategy in conflict management and international relations. One of these is the study by De Luca and Sekeris (2013) which draws the conclusion that it is an act of balance between continuous deterrence and retaliation with the loss of assets (decline in productivity, casualties, high costs in breaking the deterrence). They also present the theory that if the trade volume is negatively affected between two potential enemies by war, then both will refrain from attacking each other whilst maintaining a high level of armament to deter other competitors (2013:172, 180 *f.*).

## 2.2.2 Shakeout Strategy

In the post-entry phase at an established market when other competitors have entered, the shakeout strategy is preferred to be used. This strategy refers to the actors activities taken to have competitors out of the market and therefore gain a stronger position. There are different activities that can be done to reach the goal to discourage competitors to stay in the market by reducing their benefits or make the costs higher if they decide to stay. Example of actions that can be used are comparative advertising, present themselves as the dominant actor, predatory pricing for goods and services, entice customers away from competitors or present monitoring systems that will inspect future actions on the market (Ehrmann *et al.* 2013:187).

In the Arctic Strategies the States' might present themselves as dominant actors in the different areas looked upon. If it succeeds the consequences will, if the strategy works, sooner or later encourage competitors to exit the market. The use of predatory pricing or dumping can weaken the competitors and force them to leave the market, but this can be a costly move since the goods or services are sold at undervalue. The use of dumping can arise because of information about future profitability, but since there is no solid knowledge about the future and the development at the market it is an unsafe, but potential effective strategy to use (Clarida 1991:3 *f.*).

However, there are not only positive consequences using the shakeout strategy. Defensive investments are costly and are associated with a reduced short-term profit. The short-term profits are often used to provide new market development actions as research and development or to establish a new and wider distribution network. The growth rate can stagnate during the shakeout period and there must be a balance in the trade-off between the positive and the negative consequences in the use of shakeout strategy (Ehrmann *et al.* 2013:189).

The result presented by Ehrmann *et al.* is that the shakeout strategy tends to be superior when the actor would like to strengthen their position on the market where there is more than one actor. The use of shakeout strategy can give the actor the best long-time survival. Their result shows that shakeout investments not only shakeout the competition, it also discourages future competitor market entry and works as a deterrence strategy as well (*Ibid* 2013:198 *f.*).

## 2.2.3 “Take the money and run”

All markets are not suitable for a defence strategy to restore the market. There are situations when the investment in defence strategies only is appropriate as a temporary delaying action or not appropriate at all. In these situations there is no other strategy to use than to “take the money and run”. The idea of the strategy is to optimise, rather than maximise the defensive investments in the market. It is a short-term strategy with the idea to harvest the market of resources in as short period as possible to earn as much as possible. Often there is no respect for the future of the market (Porter 2004:511 *f.*).

*In such industries, the best defensive strategy is to “take the money and run.” This means that the firm generates as much cash as possible, knowing that entry or repositioning will ultimately erode its position. Part of such a strategy may sometimes be to encourage the entry of competitors to boost the growth rate of the market while harvesting take place (Ibid 2004:512).*

Interesting in this action is that an unnatural invitation to other states to take part of exploiting could be a sign that a harvest is to predict. More conditions that are looked for is when there are low barriers, or if they are falling as the industry evolves; if the market situation gives little opportunity to create barriers to stop entrants; when potential entrants and the competitors that exist have superior resources; or finally when there are signs of bad competitors such as competitors with low return on investment target (*Ibid 2004:512*).

This strategy is interesting to add in the study since it is possible to be alarming for the fragile Arctic environment and wildlife acting without preserving the situation. The Arctic is an extra sensitive area due to emissions and pollution because of the low temperature that slow down the degradability and therefore it takes much longer time for the Arctic environment to recover (Salomon 2011).

## 2.3 Theoretical Use

In the Arctic the equivalent for a markets goods or services are the resources that are to be found in the region such as fish stock, oil, natural gas, timber and minerals. The services that the Arctic States compete about are research and development but primarily the possibility for passage of ships in the Arctic Ocean or the Northwest/Northeast passage. These are also the areas that the Arctic States want to protect from competitors. For the Arctic States it is other States, Arctic or not, that is the competitors. It is toward them they build up and use the different defence strategies. But at the same point other States are also the customers and consumers of the products from the market.

The ideas that are presented show that on a general level, neither of the strategies is superior to the other. What is vital is when the strategy is used, and that depends on the conditions of the market. The use of the theory is to analyse the Strategies and understand the usage of defence strategies in relation to the conditions in the Arctic. The use of pre-entry phase strategy differs from the use of the post-entry phase strategy in the way that the goal of the strategy is to have a discouraging effect on potential entrants, and give the potential entrant lower expectation of a successful entry. What to expect is that a deterrence strategy is preferred when the presumed lifecycle of the resources are long and with a low level of competitors that enter the market. In contrast, the shakeout strategy is preferred in a scenario where the presumed lifecycle of resources is short to medium and a high level of probable competitors that enters or are at the market (Ehrmann *et al.* 2013:198 *f.*).

To look at the strategies that the actors use can give an image of what they predict of the situation that prevails in the Arctic, if it is a long-term or short-term strategy that is most beneficial to take with them into the future. The use of a shakeout strategy gives reputational effect and that can be of importance in the international relations between the Arctic states. By building a reputation of toughness makes the competitor to be more cautious before they decide to enter the market (Tingley – Walter 2011:345). The possibility to adapt to the situation and use the strategy to send out signals to other actors is possible in the Arctic region with the Strategies (Eriksson in Gustavsson – Tallberg (ed.) 2006:87 f.).

## 2.4 Theoretical Challenges

There are some challenges in the use of the chosen theory. This is first and foremost because it is a theory developed in the field of business economics, and therefore not streamlined for a political scientific study of States activities intergovernmental. There is still a value to add another perspective to the political science arena as mentioned above. New conclusions can be drawn, and new viewpoints might show when conducting such a study. It is a possibility to look at States as something else than just creators of norms and institutions and as firms acting in a market. Hence, a potential challenge might be that the theoretical result from Ehrmann *et al.*'s study is based on another method. It is based on mathematical calculations where they use the conditions on an established market as their variables to reach the result (Ehrmann *et al.* 2013:192).

Since I use documents that describe the Arctic States Strategies, and not the actions that have been taken in the Arctic, I cannot use the same method as Ehrmann *et al.* I use a hermeneutic text analysis applying their theory, but with my empirical material of the Arctic Strategies.

### 3 The Arctic

There are several definitions of the Arctic, the one I use in this thesis is the area north of the Arctic Circle, namely the area north of 66° 32' N (National Snow & Ice Data Center 2013). The Arctic region is divided geographically between eight Arctic States. The study will identify differences and presents what variations to expect from them in order of defence strategies in their strategic documents for the Arctic. The Arctic is sensitive to global warming and environmental changes. What happens in the Arctic, when the ice melts, affects the whole global climate, and that is one of the reasons why the Arctic is an area of global interest. The area covers more than 30 million square kilometres, approximately six percent of the planets landmass. The total land area is about 14 million square kilometres and the majority of it is the northernmost areas of Russia and Canada, nearly 80 percent, the Nordic countries, about 16 percent and the USA about 4 percent. The Arctic Ocean occupies about half of the region ([www.arctic.ru](http://www.arctic.ru), April 24, 2014).

When the ice melts and the region changes according to global warming, it is not just a negative consequence of the situation. It makes the area more available for the stakeholders to exploit. The interest in the region increases, and more attention is drawn toward the region. As mentioned the three areas that I use as headlines when I study the Arctic Strategies are *environment*, *economy* and *security*. There are different issues in the three areas, but they are all connected to each other. An increased exploration of natural resources will have an effect on the environment, wildlife and the economic interests. It also requires a greater level of security for the ones that work in the region to avoid pollution and to secure the national interests the Arctic States claim.

The Arctic is also unique in the sense that it has a very limited amount of people living there permanently in relation to its size, 0.13/km<sup>2</sup> (3 997 400 / 30 604 320). The Arctic has potentially enormous economic resources which are of interest to the Arctic States as well as others and it is important to understand what these States are doing to manage the situation in the Arctic. The relatively small population makes the area more accessible and open to development without the need to move people (Ahlenius 2005, Nationalencyklopedin, July 15, 2014).

This chapter present the condition of the Arctic market, followed by a description of the three areas that I focus on in the study as well as other scholars' results and what to expect according them. Finally the conditions that could explain differences between the Arctic States' use of defence strategies in their Arctic Strategies.

### 3.1 The Conditions of the Arctic Market

There are three conditions of the Arctic market that is worth to have in mind in the study of the Arctic Strategies and how the use of defence strategies is presented. At first, the age of the Arctic market and the establishment is rather new, as are the Arctic Strategies. The Arctic States have not been able to exploit the Arctic until the last years due to the levels of ice that have made it hostile (AMAP 2011:27).

Secondly, the predicted lifecycle of products, in this study the three areas that I focus on in the study of the Strategies, differ. The environment and the security are by me interpreted as two ‘products’ with a longer lifecycle. The environment and the wildlife is something that always has been there, and is endless in the meaning that it will not disappear, but it is still something that cannot be taken for granted and needs care, response and respect from the ones that act in the region. In the case of security there are eight Arctic States, and they all have territorial aspects to the region and a geographical area that belong to them. This is not to be changed in the predicted short-term or medium-term, but can be seen as a long-term product. In the economic part, there is a clearer ending to the products, they will run out. There is a large amount of resources, but they are not renewable. This is in the comparison to the environment and the security to be seen as a short- to medium-term (Ehrmann *et al.* 2013:194 *ff.*).

Thirdly, there are a limited number of competitors in the Arctic. But there is also a difference between the three areas. In the environmental area there are eight countries that are defined as Arctic and they are in charge of their own territories. The security area is connected to the environmental area in the fact that there are eight Arctic States. They have the responsibility for the security to work properly in the region and that the actors in the region are safe. In the economic sector there are more stakeholders and all of them are not governments, but private actors and other organisations. The dependency on other actors is also greater in the economic area to utilize the resources and exploit them (*Ibid* 2013:199).

### 3.2 Environmental Change

Interest in and the possibility to exploit the Arctic has increased in the same rate as the Arctic has become more available. A limiting factor for actions in the region is the amount of year around ice. Since measurements of the surface air started around 1880 the period between 2005 and 2010 has been the warmest period ever recorded with the smallest amount of year around ice as a result (AMAP 2011:V).

The study, *Arctic Climate Issues 2011: Changes in Arctic Snow, Water, Ice and Permafrost*, by the Arctic Monitoring and Assessment Programme (AMAP) shows that global warming has an effect especially in the Arctic. There is also a

global interest in the amount of ice that melts since it is not only the local region that takes effect; as the global temperature increase when the reflection from the sun decreases from areas less covered with snow and ice. Open water absorbs the heat from the sun more than sea ice. It increases the temperature of the surface and delays the start of ice formation in the winter, and makes the loss of ice in the summer more rapid. The result is warmer temperatures and shifts of ocean currents that melt the sea ice from underneath (*Ibid* 2011:27).

When the land-based ice melts, the sea-level rise will take place and it is one of the most serious impacts that will occur. About 200 million people live less than one meter above sea level. Areas in countries like Bangladesh, the Netherlands and Vietnam will be severely affected. Small island countries are in danger of becoming completely submerged (*Ibid* 2011:86).

With ice that melts and a change of the environment have also effects on the global biodiversity. Species in the Arctic are dependent on sea-ice, such as birds, whales, fish and mammals such as the polar bear. The changes make the conditions to feed and breed less favourable and can lead to a harder position for the indigenous population that are dependent on the supply of food (*Ibid* 2011:58).

Another environmental issue is when the ice melts an amount of pollution that is stored in the ice are released and spread in the oceans globally. High levels of polychlorinated biphenyl (PCB) are found in breast milk of Canadian Inuit women as well as in populations of seal, whale and polar bear. PCB causes cancer and damage the hormonal and neurological development of children. High levels of mercury have also been found in the regions wildlife. This has a direct affect on the indigenous people since the toxic substances are stored in the fat of the animals that they hunt and eat (Nuttall 2000:2).

The environmental change is the condition for other activities in the Arctic. Stokke discuss the intergovernmental relations that occur from the change in the environment, and suggests that it continuous is a secure environmental situation. International regulations as the United Nations convention on the law of the sea will remain as the control over natural resources and the restrictions of navigation in the Arctic. But the States still want to be in charge of the Arctic environmental area and that it follows their national interests (Stokke 2011:835ff.).

Stokke says that there is a controlled environment in the Arctic, and that defence strategies are to expect in the national Strategies since they still would like to be in control of the region. Stokke mentions that some of the Arctic Strategies are defensive and restrictive about their Arctic regions, but with an undertone of cooperation (Stokke 2011:842).

### 3.3 Economic Development

One of the areas that are of most interest for the stakeholders is the economic area. When the ice melts more areas of open water become available and provides the Arctic States with the possibility of exploitation in the region. The levels of



primarily oil and natural gas are one of the highest globally with 13 % of the undiscovered oil reserves and 30 % of the natural gas reserve are expected in the Arctic (Robertson – Pierce 2008).

The levels of resources are discussed as potential areas for conflict between the Arctic States. Scholars say that the “north is rapidly becoming a battleground – an issue many believe directly linked to the resource craze” (Ruel 2011:825). So far the disputes that occurred have been solved through diplomacy and negotiation (Ruel 2011:830).

In the Arctic there are also high levels of natural resources other than energy resources. In the study by the think tank Wise Pens International, *Naval Challenges in the Arctic Region* (2013:38), for the European Defence Agency, the percentages of global resources are presented. In the Arctic the levels of minerals are: 2.1 % of coal; 2.3 % of iron; 10.6 % nickel; 3.8 % of copper; 3.2 % of gold; 15 % of platinum; 40 % of palladium; 11% of cobalt; 9 % of tungsten; 8 % of zinc and 26.8 % of diamonds. There are also 150 prospective of rare earths and the Arctic region contains around 8 % of world timber resources. These are the resources that are highly sought after and have a high value for the Arctic States who has access to them.

The decrease of year-around ice and the large amount of minerals opens the ability of mining opportunities and increased economic possibilities in the region. If an increased number of mines start operating, it will create job opportunities and work as a developing factor for the region with more consumers that need places to live and an expansion of the infrastructure. These are areas that need to be developed to create a sustainable situation in the region. The mining industry is developing and Canada has become the world’s third largest producer of diamonds according the industry in the Arctic region (Ruel 2011:827) after Botswana and Russia (Lasserre 2011:798).

An economic area of interest for the Arctic States is the fishing rights. With potentially 10 % of world stocks, research are showing that fish move northwards and increase the fishing prospect. When the ice melt and the climate change the conditions for the plankton and the algae make more food for the fish. However, it is a short-term change as the ice that melts makes the seawater separate in different layers because the fresh water is lighter than salt and cold heavier than warm. The more separated the seawater is, the less nutrients move around. In the longer term it will worsen and the situation for the fish will be reduced stock. “A warming Arctic will not, in other words, be full of fish. It will simply be an ice-free version of the desert it already is” (The Economist 2013:76 f.).

The reduced masses of ice in the Arctic increase the availability for tourism in the region. In 2012 more than three times as many cruise passengers visited Svalbard, Norway, than in the late 1990s and the trend indicates that tourism will continue to increase in the Arctic for the coming years with more actors that take advantage of the situation (Tidningarnas Telegrambyrå 2014:A6).

When the ice melts and the Northwest Passage and the Northeast Passage opens and becomes available for shipping it primarily affects trade between Asia and Europe. The largest gains can be found between the northern Asian and the northern European ports. It is mainly Russia that pushes for the use of the

Northeast Passage as the country stands to make large economic gains if that sea route is more frequently used. Russia requires educated personnel to travel the freighters and that there is a requirement of ice breakers escort. This can be a hefty sum to pay, but Russia motivates this with the shortened distance, e.g. the route Shanghai–Hamburg will be 15 days less, and that the ships are not exposed for the risk of piracy (Evers 2013). When a shorter trade route is used to ship goods there will be an environmental gain in the form of less emissions because of the lower amounts of fuel used by freighters. The economic value that new and shorter trade routes play globally cannot be overestimated since as much as 80 % of the global merchandise trade by volume are carried by sea and handled by ports worldwide. Competitiveness of all states, not just the Arctic, depends heavily on an effective access to port networks and international shipping services (UNCTAD 2013:XI).

The need for an increased traffic in the Arctic will follow the development of exploitation of natural resources and it will be more traffic that is aimed at servicing the local exploitation by the sea (Lasserre 2011:796). Lasserre believe that it will not be the predicted explosion of shipping in the Arctic due to the harsh climate and continuous tough winter conditions. It is hard to anticipate the exact date when the shipping becomes possible. What to expect about defence strategies connected to the shipping is that there will be high requirements of the standards and increased control of the vessels. The regulations will be set by the States with harbours, primarily Russia and Canada since they are in charge of the regulations in their national waters. It is of interest for the Arctic States that there is a high standard of the traffic to secure the environment from pollution, economic loss and security of the personnel if there is an accident (Lasserre 2011:799 *ff.*).

Although activities such as mining already takes place in the Arctic, other activities connected to economic development as prospecting oil and natural gas will be very expensive for the Arctic States. There will be a need to keep a high price of oil for a long time to be able to motivate the investments needed (Ruel 2011:828). This might be reflected in the choice of defence strategy by the Arctic States. They will have to invite other actors participating in the exploitation to be able to utilize the resources, thereafter there is a possibility that they will be pushed out of the market if they are un-effective or un-prosperous. I believe that there is more of a shakeout strategy to be found in the economic area when interpreting the earlier studies done by scholars.

### 3.4 Security Issues

For the areas of environmental and economic aspects to function, security is of great importance and connects them but even though the connection between them is there, it is not necessary the same kind of security that is required. The Arctic gives opportunities, but also a number of serious issues that must be considered before eventual investments take place: expenses, lack of infrastructure, lack of specialised ships, limited periods for exploration and

exploitation and difficult night conditions during winter period are some of the issues but the most important threat to activities is ice. Multi-year ice may be harder than concrete or steel and when covered in snow it is hard to identify this kind of ice. Due to its mobility and changing nature the multi-year ice is a problem for shipping in the region as well as constructing drilling platforms for oil and natural gas. To create a secure environment the need of reliable predictions of ice and weather conditions as well as development of infrastructure in the region are necessary. The tourism cruise ships and freighters need to be equipped for the Arctic conditions, and the use of icebreakers are expensive (Wise Pens International 2013:45).

The Arctic itself is not a hospitable area with its exposed geographical position. It is a region with severe weather conditions much of the year. The weather in the Arctic is a reason why it is problematic to fully exploit the area and the shifts in the weather takes place on short notice. The ice storms make the environment uncongenial and the requirement for strength and durability on the material that is used in the Arctic are high (*Ibid* 2013:16 *f.*).

To act in the Arctic agreements and treaties are signed to ensure the necessary level of security. One of the organisations that develop an international code of safety for ships that operates in polar waters is the International Maritime Organization that is a specialized agency of the United Nations. Their main role is to create a regulatory framework for the shipping industry that is fair and effective. It is important that due to their financial issues operators cannot compromise and cut corners on security, safety and environmental performances (www.imo.org, May 1, 2014).

For the actors in the Arctic the distances between harbours and airports are something that they need to be aware of. If the need for help would be necessary it is possible that time might be the worst enemy since there are no permanent settlements on the polar ice and therefore long distances between the mainland and the possible accident. The distance is also an issue for the environment where the scale of a possible environmental disaster can be immense especially for the fragile environment of the Arctic (Wise Pens International 2013:53 *ff.*).

During the last 50 years there has been a high amount of military activity in the Arctic. The largest amount of warships are in the Russian Northern Fleet, but there is also a sizable share nuclear submarines both American-owned, but also France, United Kingdom and Russia have nuclear submarines in the region under the Arctic ice. The scholar Rutherford says that the use of submarines with nuclear warheads onboard is a deterrence strategy, and it is used by the States that are non-proliferation treaty nuclear powers to maintain a level of deterrence toward other actors. There have been treaties signed by the United Kingdom, France, USA and Russia that they will lower the amount of nuclear warheads and submarines (Rutherford 2011:467 *ff.*).

As long as all agree on the terms the deterrence level will remain at the same. Rutherford continue to say that the deterrence strategy is the one that is most likely to be used, since the idea of presenting facts about the amount of nuclear warheads is to deter (Rutherford 2011:475 *f.*). The preservation of the nuclear warheads in the Arctic is as Axelrod and De Luca - Sekeris mention, another

strategy which can be applied to the Arctic region; the security dilemma, whereby states secure their own safety by endangering the safety of others (Axelrod 1987:15, De Luca – Sekeris 2013:180 *f.*).

Under the period of the Cold War dumping of radioactive waste in the Arctic sea took place and the risks of major environmental impact are imminent. But efforts to clean up former nuclear tests and waste sites have been agreed (Sawhill 2000:7). To make the risks for threats to ecological and human security less there is a suggestion that the Arctic should be a nuclear-weapon-free-zone. To institute such a thing a first step could be that the United Nations' *right of innocent passage* could be applied to the Russian, American and European nuclear submarines. It gives them the right to transit the Arctic, but they will not be allowed to stay and patrol the region (Buckley 2012:180 *f.*).

The positive aspects from the use of the Arctic are the reduction of the distance when trading by sea and another security issue that does not occur when the north route is used is the lack of piracy and hijacking of ships (Wise Pens International 2013:42). This is a problem that takes place outside the Horn of Africa and in the Gulf of Aden, even though the last years operations have decreased the reported piracy activities in the region. There are high costs of monitoring and security that can be avoided by an increased trade through the northern passages. It is even possible that the level of attraction and profitability of piracy can reduce outside the Horn of Africa if the traffic increases through the Arctic (Tarrant 2012:1).

Lasserre, Le Roy and Garon have looked at the Arctic security from a military perspective. They have studied the coastal States' strategic documents and done a quantitative analysis of their navies' evolution. Their conclusion is that there is no arms race in the Arctic and that the coastal States use a clear deterrence strategy in their Strategies but it is more defensive than expansive and the navies can be used as a foreign affairs tool and as a prestige element for the governments (Lasserre *et al.* 2012:4 *ff.*).

They also say that Canada is the State that is most aggressive talking about their sovereignty with a strong rhetoric in their Arctic Strategy (Lasserre *et al.* 2012:11) using a deterrence strategy. Denmark and Norway has increased their activities in the Arctic, but it is mainly for search and rescue, environmental protection, inspections of fishing fleets, but also for espionage and patrolling (Lasserre *et al.* 2012:43) that is a deterrence strategy, but also signs of a shakeout strategy in the civilian perspective.

### 3.5 The Conditions of the Arctic States

To make it simpler to draw conclusions from the results I am using an ordinal scale to identify the conditions that differ among the Arctic States. This categorization is also intended to make it possible to explain differences in the use of defence strategies between the areas of environment, economy and security. To use an ordinal scale allows not only for categorisation, but also for the possibility

to rank the values, e.g. the Arctic States' relative military strength. This gives the opportunity to rank the units in the analysis (Teorell – Svensson 2007:107). The variables presented are chosen to give a good overview of the Arctic States and the differences between them, and also to give the best prospect of drawing conclusions from the study (Esaiasson *et al.* 2007:155 *f.*). The Table I is used to give an image of the Arctic States, but as the subjective epistemology says the surrounding is driven by the perception of the observers. Therefore it is not possible with general independent rules that explain the actions; it only gives a hint of the situation and conditions (Lundquist 1993:73 *f.*).

Table I	Canada	Denmark	Finland	Iceland	Norway	Russia	Sweden	USA
<b>Continent</b>	N. America	Europe	Europe	Europe	Europe	Europe/Asia	Europe	N. America
<b>Arctic coast</b>	Yes	Yes	No	Yes	Yes	Yes	No	Yes
<b>Organisation<sup>1</sup></b>	NATO	NATO, EU	EU	NATO	NATO	-	EU	NATO
<b>Military<sup>2</sup></b>	3	6	7	8	5	2	4	1
<b>Population<sup>3</sup></b>	130	105,4	201	288	380	1980	264	649
<b>Democracy index 2012<sup>4</sup></b>	8	4	9	3	1	122	2	21

Table I. Arctic States' conditions.

I have chosen to mention the following six variables (Table I): the geographical location of the State, the continent that the State belongs to, whether the State has any coast towards the Arctic, if it is a member of the European Union or NATO, the relative strength of the States' military forces, the number of nationals in the region and global rank according the Democracy Index. Six of the eight Arctic States have a coast line toward the Arctic, the North American where USA through Alaska and Canada with its archipelago in the north are Arctic. Russia is the only Asian state with coast toward the Arctic, and it is also the longest coast of all the Arctic States. The Nordic countries with coast to the Arctic are Denmark, through Greenland, Norway and Iceland, even though Iceland claim and has areas north of the Arctic Circle it is not recognized by the other five coastal states as a coastal state in the Arctic. The Arctic States that do not have coast toward the Arctic are Finland and Sweden (Granholt – Malminen 2011:27).

In the Arctic there are about four million inhabitants and of them approximately five hundred thousand are indigenous people. There is six indigenous peoples' organizations granted Permanent Participant status in the

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<sup>1</sup> The state's membership in any major military alliance and/or international organisation is interesting in the way it might explain if they act individually or collaborate.

<sup>2</sup> The strength of the military is based on the Global Firepower (GFP) formula that uses over 50 factors to determine the power of the militaries ([www.globalfirepower.com](http://www.globalfirepower.com), June 16, 2014).

<sup>3</sup> The population that lives in the Arctic region measured in thousands. The result is of the population in total and includes the indigenous population (Ahlenius 2005).

<sup>4</sup> The Democracy index is made by the Economist Intelligence Unit and it rank the level of democracy in 165 states. The index is based on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture (The Economist Intelligence Unit 2013:1 *ff.*).

Arctic Council. They have full right to consultation in the council negotiations and decisions. It is the Saami Council representing the Saami in Finland, Norway, Russia and Sweden; the Inuit Circumpolar Council representing Inuit in Greenland/Denmark, Canada, Chukotka/Russia; the Russian Association of Indigenous Peoples of the North representing 41 groups of Indigenous people in the northern Russia; the Arctic Athabaskan Council that represent the Canadian and American Athabaskan community; the Gwich'in Council International that represent the Gwich'in tribes in Alaska and Canada; and the Aleut International Association representing the natives in Alaska (Arctic Council Indigenous Peoples Secretariat, May 2, 2014).

## 4 National Arctic Strategies

The eight Arctic States all have their own documents that present how their strategic view of the Arctic area is. It presents the presumed activities that will be taken and what their strategies are for the region. I have studied the national Strategies according the substance of the document, to understand the focus of them, and to find out what causal relations in the use of defence strategies are to be found. I have also looked at the Strategies according the ideas in the theory and the assumptions made from the proposals in how the states act to defend and strengthen their market position. The documents I use in my study do not have the same design; they are individually written by the states' governments and are made equally after the individual conditions prevailing. I have used them as they are to answer my research question.

The Arctic Strategies are prepared by various parts of the national governments, and give an image about what the Arctic States' Strategies for the Arctic region are, and what areas and issues they primarily focus on. The most obvious differences between the States documents are that all of them call the document Strategy except Iceland that present an Arctic *policy* instead. The academic difference between a policy and a strategy is by the Oxford dictionary that:

*A policy is: A principle or course of action adopted or proposed as desirable, advantageous, or expedient; esp. one formally advocated by a government, political party, etc. Also as a mass noun: method of acting on matters of principle, settled practice (Oxford English Dictionary 2014c).*

*A strategy is: In (theoretical) circumstances of competition or conflict, as in the theory of games, decision theory, business administration, etc., a plan for successful action based on the rationality and interdependence of the moves of the opposing participants (Oxford English Dictionary 2014d).*

The variation between the strategy and the policy tell us that a policy is when there is something to relate to, and the strategy is more of an action plan. This might explain if there are differences between the use of policy or Strategy. To draw any conclusions in why the states have published Strategies or as Iceland a policy is not in the focus of this study and therefore is not part of the conclusion. The Arctic Strategies are presented in the alphabetic order of the States and if they are published in another language than English, this is mentioned.

## 4.1 Canada

The Canadian Arctic Strategy is called *Canada's Northern Strategy – Our North, Our Heritage, Our Future*. It was published in 2009 by the Government of Canada and under the authority of the Minister of Indian Affairs and Northern Development and the Federal Interlocutor for Métis and Non-Status Indians. The Strategy is published in three languages; English, French and Inuktitut. The Strategy consists of 48 pages. This is not the only document that Canada presents. There is a second document at the Arctic Council web page namely *Statement on Canada's Arctic Foreign Policy*. I have chosen to use the Northern Strategy for this study since it is the national document that describe the Canadian activities in the Arctic region, and not as the Statement that focus on the Northern Strategy abroad and the external actions in the region (www.arctic-council, March 9, 2014).

The Northern Strategy focuses on four priority areas: exercising the Canadian Arctic sovereignty; promoting social and economic development; protecting the North's environmental heritage; and improving and devolving northern governance (Government of Canada 2009:c f.).

The undertone in the introduction is nationalistic and points out that much of Canada's heritage come from the northern regions and the people that live in that region. It is mentioned that the region is an important part of Canada's history, and therefore Canada allocate more resources and attention to issues in the north than at any time in their history. The Government of Canada present their clear vision for the region and it say that self reliant individuals live healthy, communities are vital and that they shape their own destinies. The respect for the land and the environment is of primary importance and all the decision-making shall be taken responsible and the development must be sustainable. The importance of strong local governments that work for the Canadian interest and secure the Canadian federation by patrolling and protecting the territory through presence on the land, in the sea and in the air over Arctic (*Ibid* 2009:1 f.).

### 4.1.1 Environment

The environment is included in the entire document and it is mentioned that the environment is important to take care of and that no development shall take place unless there is an environmental sustainability in the actions taken. To look at the defence strategy that is collected from the theory it is a deterrence strategy that is used in the environmental parts. It is a focus on the environmental value in the northern regions, and that they are a part of the Canadian history. It is pointed out that it belonged to the Aboriginals and the Inuit peoples for more than 200 years. There are allusions to the historical Canadian heritage with the exclusive right to the region. The Strategy claims the Arctic as an important part of Canada. It sends out the signal that other stakeholders should stay away from the Canadian Arctic



region and that they are not invited to take part in the exploitation (Government of Canada 2009:3 f.).

The area where some cooperation and comprehensive approach is mentioned is about international issues as the climate change and the consequences that it may have to the region. Organisations such as the United Nations and the Arctic Council are partners when handling the climate change. The only thing is that all actions taken shall be in line with Canadian interests. This follows the deterrence strategy that only other actors may participate if they adapt to Canadian rules and behaviour and it is protectionist (*Ibid* 2009:25 ff., 33 ff.).

There is no shakeout strategy since the Canadian environmental market is solely Canadian, and there is no other actors mentioned in the Northern Strategy other than the United Nations and the Arctic Council as a part of it.

#### 4.1.2 Economy

The economic sectors that are mentioned are tourism, transport, fishery and resources development. To make the economic development possible there must be investments in the infrastructure. This is done to secure the potential development. Diamond mines and massive oil and gas reserves, as well as a growth of the commercial fishing and a thriving tourism industry are potential future incomes. Satellite images, from 2007, show that the year-around ice is decreasing and melts, which enables the region to be exploited and an increased international interest opening transportation routes for tourism, fishing, natural resources and development. There are private investors mentioned to be a part of the resource development, but no other states (Government of Canada 2009:4 f.).

The environmental changes in the region are seen as a possibility for Canada to develop social and economic projects to strengthen the Canadian presence and the Northerners living in the Canadian Arctic. The economic development is done to make sustainable employment for the Aboriginal people in industries such as mining, oil, gas and hydro-electricity (*Ibid* 2009:21).

In the economic parts there is a deterrence strategy used due to the national interest and the strictly Canadian value in the Arctic. The reason of the economic development is to strengthen the Canadian population and the infrastructure of the Arctic regions to make them as valuable as possible for Canada. The Northern Strategy point out that the economic parts in the Arctic are Canadian and that they are done in the interest of Canada and the Canadian population (*Ibid* 2009:8 ff.).

#### 4.1.3 Security

There are issues mentioned in the Northern Strategy about security. The consciousness in the economic development of the region to create a sustainable environment and that the development of resources is not invasive to the environment on behalf of both the people and the wildlife (Government of Canada 2009:16).

The Canadian strength of their heritage in the Arctic and that it is a sovereign part of the nation with the history of the indigenous people is reasons why Canada has a big interest in the Arctic. Canada wants to have a strong presence and they look at themselves as stewards of the region. To secure the longstanding national interest the government ensure that they have the capacity to protect and patrol the land, the sea and the air in their Arctic territory. They “are putting more boots on the Arctic tundra, more ships in the icy water and a better eye-in-the-sky” (*Ibid* 2009:9).

To mention the “significant investments” in the capabilities on the land and the sea are a way to send out the message that Canada do not want others to act in their archipelago (*Ibid* 2009:10). Reference is made to the United Nations Convention on the Law of the Sea to create a surveillance system that forces ships to register to the Canadian coast guard before they enter the Canadian maritime territory and the work with the United Nations is also to ensure the maximum area of the Continental Shelf claimed by Canada, even though it is not a race according the Canadian Northern Strategy (*Ibid* 2009:12).

The sovereignty and importance of protecting the Arctic and different military investments is mentioned. To maintain a secure Arctic region and keep unauthorised stakeholders out of the region are important to Canada that claims its sovereignty over the lands and islands is undisputed. Though, exceptions are referred to in the document. It is the issue about Hans Island that both Canada and Denmark claims as their sovereign territory. There is a disagreement between the United States and Canada about the maritime boundary in the Beaufort Sea and between Canada and Denmark regarding the maritime boundary in the Lincoln Sea. The issue between USA and Canada are about the legal status of the waterways in the Northwest Passage where Canada want to restrict the use of the waterways. The issues are managed in a diplomatic way and do not have any impact on the defence or sovereignty of Canada (*Ibid* 2009:13).

Primarily it is a deterrence strategy in the section about security, but a shakeout strategy can be identified about the territorial issues where Canada is taking care and resolve it in the future in a suitable way that fit Canadian interests. Canada uses the collaboration with USA and Denmark to reach their interest in the issues. To have the registration of vessels that enter the Canadian maritime territory is a way to make the situation harder and non-welcoming for others, and therefore strengthen the Canadian position. It is a way to make competitors to choose another way than the Canadian Northwest Passage.

## 4.2 Denmark

The Danish Arctic Strategy is called *Kingdom of Denmark Strategy for the Arctic 2011-2020*. It was published by the Ministry of Foreign Affairs in Copenhagen, the Department of Foreign Affairs in the Government of Greenland and the Ministry of Foreign Affairs in the Government of the Faroes in August 2011. It is published in English and it consists of 59 pages.

The Strategy for the Arctic is a joint strategy for the three parts that the Kingdom of Denmark consists of: Denmark, the Faroe Islands and Greenland where Greenland is a centrally located part and a coastal state in the Arctic (Ministry of Foreign Affairs 2011:10). Of the three parts that Kingdom of Denmark consists of it is only Greenland that is geographically placed in the Arctic according to the definition I use.

Cooperation is the catchword in the Danish Strategy for the Arctic. This is reflected in the three areas that I focus on and it is with control and surveillance that cooperation can be implemented.

#### 4.2.1 Environment

Environment is important for Denmark, especially the environmental changes in Greenland that arise from the global warming and the increasing temperature in the Arctic. The Strategy for the Arctic presents some activities in the Arctic that are connected to the Ehrmann *et al.* theory. All actions that are taken in the Danish parts of Arctic are regulated. For the ones that are interested in the exploitation of the natural resources in mainly Greenland, Denmark has created a license system that control the aspects of safety and health as well as an identification of potential environmental risks. To get a license the applicant must also sign a treaty that the full responsibility for a possible clean-up and compensation lies with the party causing the damage (Ministry of Foreign Affairs 2011:26). This is a deterrence strategy for Denmark to control and be in charge of who is allowed to enter and take part of the area and its resources.

Denmark is eager to have the environment up high on the agenda for the Arctic and is positive in cooperation with other organisations such as the European Union and the United Nations, but also other states. In that way they secure that other actors are responsible for their actions. By management of their affairs, Denmark gets the other states to act in accordance to their agenda and therefore Denmark has a greater influence in the Arctic region (*Ibid* 2011:10).

#### 4.2.2 Economy

There are large reserves of natural resources, primarily on Greenland. Much is yet to be identified and this is collaborated primarily with Canada, USA, Norway and Russia regarding the economic zones that the coastal States are entitled according the United Nation's Convention on the Law of the Sea, in the Arctic. Between these States the discussion regards the continental shelves and who that has the right to the different areas where the exploitation and the exploration take place (Ministry of Foreign Affairs 2011:14).

By the reference to the United Nation's Convention on the Law of the Sea, the opportunities for other States than the coastal in the Arctic are insignificant. The deterrence strategy and the control are strong. The Danish strategy to use bureaucracy to make it more complicated for other actors to be a part of the

market by licenses and controls of the activities are both a deterrence strategy and a shakeout strategy to regulate the economic exploitation. When different actors have entered the market the continuous supervision of them is a part of the plan for Denmark to maintain in control of them. For the actors to be allowed in continuous development of the resources there are yearly controls done to ensure that the actors work in accordance to the regulations that Denmark has set up. For the fishing industry, that represent about 85 % for Greenland and 90 % of Faroe Islands total export inspections are done to control the quotas. This is a way for Denmark to be in charge of the activities, but it is in cooperation with the ones that are allowed to be a part of the industry (*Ibid* 2011:26 ff.).

The global warming and the climate change give possibilities for the region to develop and with less ice it will be important to have new capacities for trade routes that will go through Greenland. The ability to develop Greenland and make it more independent is something stated in the Strategy (*Ibid* 2011:10).

There are also special rules that are valid for the Faroe Islands and Greenland in accordance to the hunt and trade with seal and whale products that Denmark actively work for indigenous people to continue with. In Danish waters the European Union rules apply and there is a total ban on whaling. This is one of the areas that is sensitive and might become an issue further on when the trade is more developed in the region. In the European Union all import of seal products are banned (Regulation (EC) No 1007/2009 of 16 September 2009).

### 4.2.3 Security

In the area of security there are two ways presented: the military security and the environmental and commercial security. The environmental and commercial security has licenses and applications that must be approved by the Greenland Mineral Resources Act. This is a deterrence strategy. If the actor does not fulfil the requirements they will not be able to exploit the region (Ministry of Foreign Affairs 2011:26).

It is also a shakeout strategy in the field of shipping; the ships that sail to Greenland must continuously report their position to the Greenland Command. This is an act to prevent accidents, but also to control that the ships reach the level of security that are proper for the Arctic sea. Due to the reduced amount of ice the possibilities to use the Northern Passages can be profitable for Greenland. Greenland has a strategic position in the Arctic between Europe and North America. The use of the Northwest and Northeast Passage reduce the amount of traffic in the Panama Canal and the Suez Canal (*Ibid* 2011:19).

Denmark sends out a marker that there will be an increased military presence in the Arctic and that they will continue to use the area as training facilities for their military. The key tasks of the armed forces in the Arctic are the enforcement of the Danish state sovereignty. There is a deterrence strategy in explaining what the armed forces do in the Arctic, and that it is not welcome to intrude in the Danish Arctic. The units from the army, navy and air force carry out tasks in the Arctic where surveillance of the airspace and territorial waters as well as the

Greenland economic zone and fishing zones to ensure that no violations of territory take place (*Ibid* 2011:21).

The Self Government on Greenland has taken a decision that there is a zero-tolerance policy regarding radioactive mineral. This means that no exploitation or exploration of deposits that contain radioactive elements, either as main product, by-product or residue is permitted (*Ibid* 2011:25).

## 4.3 Finland

The Finnish Arctic Strategy is called *Finlands arktiska strategi 2013. Statsrådets principbeslut 23.8.2013*, or in English: *Finland's Strategy for the Arctic Region 2013. Government resolution on 23 August 2013*. It was published by the Prime Minister's Office Publications in August 2013. The Strategy is published in both Swedish and English and it consists of 57 pages.

The vision in the Strategy is for Finland to be an active and responsible actor in the Arctic and in a sustainable way link the business opportunities provided with the special limitations the environment impose (Prime Minister's Office 2013:16).

### 4.3.1 Environment

There must be a sustainable development of the Arctic, and Finland presents themselves as an important actor to provide the sustainability. The climate change will be a major factor for the future in the region. A reason why Finland is interested in safeguarding the environment in the northernmost parts of Finland is because of the forest, the wood-industry and the possibilities to take advantage of the untouched areas in a commercial way with increased tourism. Therefore it is a deterrence strategy to remain the area in the way Finland want (Prime Minister's Office 2013:32 *f.*).

Finland uses their location to their advantage. The untouched nature is important for the development of tourism. The connections between Norway, Sweden and Russia for transportation of resources are used by Finland to get influence over the communication system. There is a deterrence strategy that limits the possibilities for Finland. It is the border toward Russian in the east that works at capacity and is not able to respond to a growing amount of traffic. If it is possible a visa-free travel between the EU and Russian would benefit the Finnish economy (*Ibid* 2013:33 *f.*).

### 4.3.2 Economy

The major export for Finland is knowledge. Several times, in the Strategy, the exclusive Arctic expertise is mentioned that makes Finland indispensable as an

actor in the Arctic. To point out how important Finland is to keep the Arctic function due to the leading position as an expert in Arctic shipping and maritime industry make the gains better for Finland. The expertise in developing durable materials for the exposed region and a continuance of the construction of ice breakers, as well as researchers in the meteorological area are of interest for the other actors in the Arctic and work as a deterrence strategy since the other actors are behind Finland in this area. There will be a need of major economic investments to catch up with Finland's level of knowledge (Prime Minister's Office 2013:49).

Finland is very active in the different organisations, projects and forums that handle with the Arctic. This can be seen as both a shakeout strategy and a deterrence strategy. If they build up a dependency of the know-how in Finland and gets projects to be placed where it is profitable for Finland, the result will be that Finland will gain strength. The influence of Finnish industry and research in the Arctic region will increase as other competitors will be out of the market (*Ibid* 2013:41 ff.).

### 4.3.3 Security

Finland is eager to create a sustainable shipping industry, and use the Polar Code as a shakeout strategy that shall apply to all the ships in the region and gain market shares in the production of sustainable ships (Prime Minister's Office 2013:33). The military aspect of the security is that the region creates a unique ability for training and exercise in an Arctic atmosphere with special equipment and material for the cold temperature and weather conditions. Finland uses the location in this area as well to be their defensive deterrence strategy. Since there is no other areas that is like the northern Finnish, and that they are specialized in the Arctic climate make other actors less important in development of defensive training facilities and materials. The uniqueness is the strength for Finland and it is no certain strategy since it is the only country that can offer this conditions (*Ibid* 2013:38).

## 4.4 Iceland

Iceland approved their Arctic Policy by Althingi at the 139<sup>th</sup> legislative session March 28, 2011. It is called *A Parliamentary Resolution on Iceland's Arctic Policy* and consists of eleven pages, published in English.

The policy includes twelve principles that will strengthen the Icelandic interests in the Arctic region.

#### 4.4.1 Environment

Iceland presents the same idea as the other States about the importance of sustainability when environment is mentioned. But there is a more concrete repudiation toward human-induced climate change (Althingi 2011:2). There is no deterrence or shakeout strategy that is presented about the environmental area, but Iceland does not want to pollute the region and the utilisation of natural resources must be environmental.

#### 4.4.2 Economy

Iceland sends out a message that the Arctic Council is the proper forum for decision-making in the Arctic, and that the meetings between five other Arctic States without Iceland are not proper. Iceland feels that this smaller forum is undermining the work that takes place in the Arctic Council and that they have been subjected to a shakeout strategy. Iceland claim that they are a coastal state in the Arctic and that they should be a part of the meetings where the other coastal states decide about the economic zones in the Arctic (Althingi 2011:5 f.).

Iceland would like to have a strong cooperation with the other Arctic States, and stakeholders in the region, and predicts that the geographic position is valuable in the future when the cargo traffic around Iceland increase (*Ibid* 2011:10).

#### 4.4.3 Security

Iceland want to see a demilitarisation of the Arctic, but are positive to military operations when they are a part of civilian operations as search and rescue, or monitor that no illegal activities happen in the Arctic. The cooperation with the other Nordic States and the USA about surveillance and the Icelandic air space is positive. But there are no defence strategies presented in this area.

### 4.5 Norway

The Norwegian Strategy is called *New Building Blocks in the North. The next step in the Government's High North Strategy*. It was published by the Norwegian Ministry of Foreign Affairs in 2009. The Strategy is published in English and consists of 93 pages.

The Strategy is the second that Norway has published and it follows up to the first one that was published in 2006. In the first Strategy for the High North 22 action points was presented, which most has either been completed or commenced. The most recent Strategy is separated in two parts, where the first part presents the Government's platform for the further work in the High North.

The second part of the Strategy contains examples to show the diversity of the opportunities and the challenges that Norway face in the High North and the issues that have been focused (Ministry of Foreign Affairs 2009:3).

#### 4.5.1 Environment

One of the areas that Norway focuses on in the Strategy for the High North is to be at the forefront of environmental sustainability. The knowledge of how the change of climate will affect the region and not only the impact it will have on Norway, but the consequences globally is mentioned as important (Ministry of Foreign Affairs 2009:6 f.).

In the environmental area there are defensive strategies that can be identified. The willingness to make the Norwegian areas of Tromsø and Svalbard to be hubs for Arctic research and focus the research to these areas is a way to link the researchers and keep their knowledge in Norway. To create these scientific areas is a way of shakeout strategy since it weakens other places that are competing over the researchers and their knowledge (*Ibid* 2009:8 f., 85f.).

The development of monitoring systems, which can measure any risks for emissions and oil spill, can have a deterrent effect for actors that are not serious. The effect might also be a shakeout of the actors that are in the market, but don't fill the requirements that are imposed. To have a system that can monitor the growing traffic could "make it possible to take actions against ships that pose a threat to safety and the environment" (*Ibid* 2009:15). The system is developed with the eastern neighbour, Russia, and is used by the coast guard to prevent actors to exceed the fishing quotas decided. Importance for the region that the fish stock to remain at a stable level and that there is sustainability in the fishing industry is vital for the long turn and the survival of the inhabitants in the region (*Ibid* 2009:76 f.).

#### 4.5.2 Economy

A shakeout strategy can be seen in the economic area are that Norway primarily appoints Norwegian companies to manage the extraction of oil and natural gas. The government give benefits to their national companies. They do not allow other actors to be a part of the market. There are also high requirements that the companies need to reach before they are allowed to enter the market of exploiting resources (Ministry of Foreign Affairs 2009:13, 68).

One of the industries that grow fastest is the amount of tourists that visit the Norwegian regions in the Arctic. To provide high quality experiences for the visitors Norway make it to be a shakeout strategy. It is more beneficial to go to Norway on holiday than to other similar areas in the Arctic. The Government also subsidise small and medium companies in the region to make them stronger and therefore more competitive in the market of tourism (*Ibid* 2009:26ff.).



In the same economic area is the development of the infrastructure in the northernmost parts of Norway. To have a strong system of communication and transportation make Norway to be a strong competitor in the market of logistics. To create advantages over opponents through investments in the infrastructure is a strategy that Norway uses. There is a shakeout strategy to strengthen the Norwegian companies and the opportunities to use the Norwegian infrastructure rather than other Arctic states (*Ibid* 2009:63 f.).

### 4.5.3 Security

In the environmental part the monitoring and surveillance are important factors and the use of a shakeout strategy. Together with European Union the use of satellites is a way to create a secure environment in the Arctic and is one of the ways that Norway act to sustain the security. The coast guard patrol the region and make controls of the vessels that are active to avoid illegal activities, both to protect the economic interest and the environmental (Ministry of Foreign Affairs 2009:23).

Norway strengthens their armed forces and is able to exercise sovereignty and have a high level of presence. The armed forces help the civil actors to create a stable and peaceful area. The protection of the own interests in the Arctic are important for Norway that is eager to make the economic zones as great as possible to prospect for oil and gas. There is a deterrence strategy to claim that there is a presence in the region and that other actors should respect the Norwegian interests (*Ibid* 2009:54).

## 4.6 Russia

The Russian Strategy for the Arctic is called *Development Strategy of the Arctic Zone of the Russian Federation and National Security until 2020*. It is in English and it was published 2013 and approved by the President of the Russian Federation, Vladimir Putin the 20 February 2013 and consists of 15 pages.

The Strategy follows the document published in 2008 and is pursuant to that document. In the Strategy the content define the main mechanisms, methods and means to reach the goal and priorities of a sustainable development of the Arctic parts of Russia, and to remain a national security (Russian Strategy 2013:1).

It is a visionary Strategy that presents the areas that Russia would like to develop and focus on for the years until 2020.

### 4.6.1 Environment

The Strategy points out that the Arctic is a challenging area and that nothing is to take for granted. It is a special condition to act in the region. By pointing out that

there are issues with the environmental condition in hard weather, the remoteness from industrial centres and the sensitive and instable ecosystem is a way to tell other actors that it is difficult to act in the region. There is a deterrence strategy to be found in the continuous of stating how unwelcome the area is, to almost tell the reader that it is not even worth to try to engage the region (Russian Strategy 2013:1 *f.*).

The environment is important to be aware of when to prospect the area, and the need for indigenous people to have decent conditions and possibilities to clean water, medical care, education and houses. The need of surveillance as a shakeout strategy to not extinct the fish stocks and maintain a sustainable biodiversity. To create a region that will not depopulate and therefore not be able for Russia to develop are in the goals of the Strategy (*Ibid* 2013:4 *ff.*).

#### 4.6.2 Economy

In the economic section there are many areas that are in need of development to strengthen the Russian stake in the Arctic. To develop the infrastructure and to cooperate with other actors in the Arctic will give Russia more influence and will let Russia to be able to use the region to gain more in the economic region. Telecommunication and development of information technology and Internet to be stronger in the competition of market shares in the Arctic are mentioned in the Strategy (Russian Strategy 2013:8).

To be able to use the Northeast Passage for shipping and transportation is a way for Russia to be in control of the region, and strengthen the abilities to economically gain from tariffs (*Ibid* 2013:10). This is both a deterrence strategy, and a shakeout strategy, since it controls the activity and the condition for activity. To have requirements of icebreakers and ships to go in to harbours that are all Russian are possibilities for Russia (*Ibid* 2013:7).

#### 4.6.3 Security

Security is a factor that is distinct in the Strategy. It is first mentioned in the title of the Strategy “National Security” (Russian Strategy 2013:1), and followed with the deterrence strategy in the section about the military security, defence and protection of the Russian border (*Ibid* 2013:10).

Russia will support a combat and mobilization readiness at a sufficient level to solve problems to prevent power politics and aggressions toward Russia. There is an opportunity for Russia to freely carry out its activities in the economic zone and in the continental shelf that is a part of Russia in the Arctic and neutralize external and internal military risks and threats. It is even mentioned that Russia will ensure strategic deterrence, and if there will be an armed conflict Russia will repel aggression and cease hostilities on terms that meet the interest of Russia (*Ibid* 2013:10).

It is mentioned that Russia will work to secure the continental shelf that is Russian, exploit the resources and modernize the weapons in the area and the level of the security and equipment to deterrence other stakeholders that may have interest in the Russian part of the Arctic (*Ibid* 2013:13 f.).

## 4.7 Sweden

*Sveriges strategi för den arktiska regionen* was published 2011 in connection to the Swedish chairmanship for the Arctic Council between 2011 and 2013. It is available in both Swedish and English as *Sweden's Strategy for the Arctic Region*. It is published by the Ministry of Foreign Affairs [Utrikesdepartementet] for the Government and consists of 43 pages total with three appendices.

Except the Swedish relationship, priorities and development of the Swedish politics toward the Arctic, the Strategy has three main priorities; climate and environment; economic development; and the human dimension. This runs all through the Strategy and it is clear that these areas are the most important for Sweden in the Arctic. Cooperation is a theme that is repeated throughout the Strategy and in the different areas. Sweden was also the last Arctic State to present an Arctic Strategy (Utrikesdepartementet 2011:2 ff.).

### 4.7.1 Environment

This is the area that the Swedish Strategy focuses on the most. Throughout the Strategy there is an environmental thought about all the priorities. The defence strategy that is mostly used is the shakeout strategy. This is exemplified in the Strategy with the importance of knowledge and education to reduce greenhouse gases in the long term. To strengthen the Swedish companies and resources by awareness of the environment and that their services are environmental and more competitive give them advantages. Sustainability is a key word for the Arctic, and that is something Sweden point out as an important factor for the region and that is used as an advantage (Utrikesdepartementet 2011:3, 19, 33).

Sweden would like to create an environmental monitoring system that will reduce activities in the sensitive region. The environmental monitoring systems will shakeout the actors that do not adapt to cleaner services, and it will be deterrence to the actors that would like to enter the market in the future (*Ibid* 2011:20 ff.).

### 4.7.2 Economy

Sweden promotes free-trade and that it should be the way to go in the Arctic. This is a shakeout strategy because the market determines what actor that will be left and the competition is the same for all actors in the Arctic. Sweden wants to make

the technical barriers of trade to be obsolete and in this way promotes the free trade. Sweden also wants the traffic to be free in the Arctic, and that the only regulations and restrictions are the ones that can be connected to environmental and human safety (Utrikesdepartementet 2011:23 ff.).

There is an interest in the area of natural resources related to the wood industry and the paper industry. In this area the Swedish knowledge is high and therefore there is deterrence for others to enter these markets. It is also a heavy industry that is expensive to start up and in that way there is competitive advantages in the Swedish industry that is presented in the Strategy (*Ibid* 2011:12).

More competitive advantages that the Swedish companies are known for are the consciousness of the environment, and to have processes that are as energy effective and less pollutant as possible. This environmental knowledge is not just favourable in the Swedish parts of Arctic. It is an opportunity to develop the tourism and it also is used for the vehicle industry to test in winter climate and conditions. This is a part of deterrence strategy, since it is hard for other competitors to create the conditions that are needed to compete with the Swedish nature and environmental awareness (*Ibid* 2011:25 ff.).

### 4.7.3 Security

The Swedish Strategy present that Sweden will work for the Arctic to be a region with low tension in the area of security policy and if necessary, the actions taken should be civilian and not military. The sections that describe security talk about sustainability when exploring and exploiting the region. To maintain a high level of quality in the shipping industry to avoid accidents and potential emission of oil or other pollutants, Sweden is working a shakeout strategy for a ratification and implementation of the Polar Code. The Polar Code will set a standard that ships must have in order to be active in the Arctic waters (Utrikesdepartementet 2011:23).

There is a deterrence strategy that can be found in the document, and it is that Sweden is a part of the Nordic solidarity clause. This ensures that “Should a Nordic country be affected, the others will, upon request from that country, assist with relevant means” (*Ibid* 2011:12). And it might lead to new areas of responsibility for Sweden in the Arctic.

## 4.8 USA

The American Strategy for the Arctic was done in May 2013, and is a short document that consists of eleven pages. It is named the *National Strategy for the Arctic Region* and it consists of thirteen pages.

The Strategy sets forth the strategic priorities the United States Government has for the Arctic region. Challenges and opportunities for the region are

presented and in the summary the three lines of effort in the Strategy is mentioned: security interests, responsible Arctic region stewardship, strengthen international cooperation (The White House 2013:2).

#### 4.8.1 Environment

There is no clear defence strategies presented in the area of environment, other than the interest for sustainability and that USA has interest in exploiting the region, but foremost use the trading routes that will be exposed when the year-around ice melt. It is mentioned that it is a region under change, and that there must be consciousness about the climate change (The White House 2013:5).

All decisions shall be done with the best available information, and the most current science and traditional knowledge must be in mind, not only when exploiting natural resources, but also the infrastructural investments that needs to be done in the area (*Ibid* 2013:8).

#### 4.8.2 Economy

The Arctic is a region with economic potential and the amounts of natural resources are potential to provide for the future energy security, and can be interpret as a deterrence strategy to tell other actors that the resources in the Arctic region belong to the Arctic States (The White House 2013:7). USA is willing to protect the freedoms that the Arctic region offer such as the freedom of navigation, overflight and other uses of the airspace and sea related to these freedoms. USA will protect the free flow of resources and that unhindered lawful commerce is possible as well as disputes will be solved peacefully for all nations (*Ibid* 2013:4).

#### 4.8.3 Security

In the American Strategy the focus is on the security aspect and it is the first of the three lines of effort. The vessels and aircrafts will be able to operate under, through and over the water and airspace in the Arctic. Security in the Arctic is a broad spectrum of different activities, from national defence to those that support safe scientific and commercial operations (The White House 2013:6).

The defence strategy that can be identified in the security area is a deterrence strategy. The following quote also confirms that: “Our highest priority is to protect the American people, our sovereign territory and rights, natural resources, and interests of the United States”. The focus is on protection of American, rather than Arctic interests (*Ibid* 2013:6).

The guiding principles also point at security and protection, but the interest in the preservation of the Arctic region as an area free of conflict, and that

cooperation is necessary for the challenges in the region to be met (*Ibid* 2013:10f.).

## 4.9 Overview

Table II give an overview of the analysis of the Arctic Strategies. The defence strategy that is most used is the deterrence strategy. This strategy is most common in the area of environment and security. In the area of economy the shakeout strategy is most common. There is a multiple use of defence strategies in the three areas, but in Table II I have chosen to present the defence strategy that I interpret as the most used.

Table II	Environment	Economy	Security
<b>Canada</b>	D	D	D
<b>Denmark</b>	D	S	S
<b>Finland</b>	D	D	D
<b>Iceland</b>	-	-	-
<b>Norway</b>	S	S	D
<b>Russia</b>	D	S	D
<b>Sweden</b>	S	S	S
<b>USA</b>	D	D	D
	5*D, 2*S	3*D, 4*S	5*D, 2*S

Table II. In some of the Arctic Strategies there is more than one defence strategy mentioned and used, but the table show the most clearly and commonly used defence strategy in the Arctic States Strategies. The result show that the shakeout strategy is most common in the area of economic and that the deterrence strategy is most common in the area of environment and security.

## 5 Conclusions

The Arctic is a region undergoing a change in the areas of environment, economy and security. The change in the Arctic is also noticeable in the Arctic States Strategies for the Arctic region. In this study I have analyzed the Arctic Strategies to identify the use of certain defence strategies and to understand how these strategies are used. The reason for using defence strategies is, according to Ehrmann *et al.* and Porter, for firms on a market to protect their interests and strengthen their position towards competitors, present or future. There are different aspects that affect what defence strategy to use: the age of the market, the predicted lifecycle of the markets products and the number of competitors. It also depends on the time-phase that the competitors are in: if they will enter or if they have already entered the market.

The Arctic is special in the way that it has only been available for the stakeholders for a short period of time; this is connected to the rise of the temperature globally in the recent years. The increased temperature has caused the layers of ice in the Arctic to melt and the amount of year around ice to decrease. This is an ongoing process, yet has already lead to a more open and available region with greater interest and increased possibilities for the stakeholders to be a part of the exploration, exploitation and development.

The Arctic is an area with great potentials, both economic and in the area of security, but also a unique region in terms of the environment and wildlife. There is awareness among the eight Arctic States of what is taking place in the region and they have all published an Arctic Strategy or as in Iceland's case a policy. The difference between a policy and a Strategy might be the explanation why Iceland do not use defence strategies in their document related to the explanation of the terms. The Arctic Strategies present their attitude to the region, and how they plan to act in accordance to the transforming situation.

The increasing importance of the Arctic region means that it plays a greater role for the Arctic States and that it becomes increasingly important to protect their interests in the region. The research question in this study is formulated: *How do the Arctic States conduct themselves, and how can their actions and attitudes be understood toward the Arctic region?*

In order to answer this question the study has been interdisciplinary with a link between the business economic and the political science disciplines. The method has been a hermeneutic text analysis to understand the research question from the content in the empirical material that in this case is the Arctic Strategies of the eight Arctic States. The theory in the study is taken from Ehrmann *et al.* in the form of a theory about defence strategies used by firms on a market to either deter competitors to enter the market, to shakeout them from the market after they

have entered or to “take the money and run” to generate as much money as possible from the market.

My analysis gives the result that in the Strategies there are elements of both deterrence and shakeout strategy to be found in all three of the areas I chose to focus on (environment, economy, and security). In no case was the “take the money and run” strategy found. My analysis further shows that a mixture of both deterrence and shakeout strategy is used by the States. There are causal relationships between the conditions of the three areas and the use of defence strategy. In the case where the predictions for a use of deterrence strategy, the study show that the Arctic States in a majority follow the theory in almost all of the areas. It is still as the hermeneutics say: there is no omnipotent law that explain the use of defence strategy, but patterns and understandings can be done from the result. Why there is differences between the Strategies could be that the study is of the Arctic Strategies, the documents that tell us what the States’ public strategies are for the Arctic region, and not the States’ actual planned activities. Still the most common defence strategy is the deterrence strategy. This I believe can be related to the characteristics of the Arctic “market”: the age of the market, the predicted lifecycle of products and the number of competitors. The scholars’ material that I have looked at, also show that the presumed defence strategies they present are used by the States. In the area of security there is a clear use of deterrence strategy, and the other areas are perhaps not crystal clear, but follow the pattern.

The Arctic is still a relatively new area to develop for the Arctic States. The global warming has made the region more accessible, but it is still an unwelcoming area due to factors such as the severe weather, cold temperatures, long winter nights and the shifting levels of ice that make the establishment difficult. All the Arctic States are in the early stages of establishing themselves in the region and it is hard to shakeout competitors before they have entered the market. In this pre-entry phase it is more effective to build up barriers that deter competitors from establishment.

The predicted lifecycle of the “products” is a slightly different story, but the choices of defence strategies by the analysed States still follow the theory. In the case of a short to medium lifecycle of the product, as in the economic sector, the strategy to use is the shakeout strategy, and that is what the result of my analysis of the Strategies show. Norway is a good example that uses the shakeout strategy when they subsidise their own medium and small companies to gain economic advantage over competitors in the market. Compared to the other areas, environment and security, with a longer predicted lifecycle the most common defence strategy is the deterrence. The use of deterrence strategy in the economic sector is still almost as common as the shakeout, and this is connected to the earlier result about the conditions on the market.

The third condition also speaks for a use of the deterrence strategy. The Arctic has a limited number of competitors. The theory says that a low number of competitors fit deterrence strategy better than the shakeout strategy and in two of the three areas there is a limited number of competitors. The environment and the security are under the main responsibility of the Arctic States. In the economic



area there are more actors. The governments themselves do not implement the actions to exploit the resources, even though in some cases governmentally controlled industries are involved. Instead there are more actors that are hired and more stakeholders that have the possibility to compete. The result of more actors is mirrored in the fact that the shakeout strategy is used in the same amount as the deterrence strategy in the economic area.

One of the most positive results that I have found in the study is that the third defence strategy “take the money and run” is not mentioned in any of the Strategies. This is perhaps because the strategy can be seen as an irresponsible strategy with a very short time-line to have in a region with an environment, nature and wildlife as sensitive as in the Arctic. Although it is not mentioned in the official Strategies, thus, the importance for the Arctic States to be aware of the signs that indicate if the “take the money and run” strategy is to be used. The result of this strategy can lead to environmental disasters.

To sum up, the Arctic is a relatively new market in a pre-entry phase with not that many actors and the predicted lifecycle of products to be long. The only sector that differs is the economic where there are more competitors and a shorter predicted lifecycle of the resources. There is a more frequent use of the shakeout strategy and it is interesting that even though the shakeout strategy is primarily used to squeeze out competitors, in the Arctic Strategies it is used to show that the “firm” is a fierce competitor and that it has a discouraging effect on potential entrants. This is a positive side effect that the shakeout strategy, to some extent, can complement or replace the discouraging effect on the potential entrants of a deterrence strategy. The study shows that the use of defence strategies is for the Arctic States to strengthen and defend their positions, to intimidate competitors from intruding the areas of national interest and to prevent them from entering the Arctic market.

Finally, as the subjective epistemology say, the result is presented as the observer sees it, and I have not been able to find any significant correlations between the preconditions that are presented in Table I and the use of defence strategies. There is no absolute law that explain the use of defence strategy but conclusions can be drawn, such as the scholars presented in their studies what defence strategy to be expected. The results in Table II also show that the Arctic States, even if they are not consistent in the use of strategies follow the predictions.

The differences that can be discerned are the geography and size of military. The coastal States has a slightly more defensive stance to protect the economic interests and the three States (USA, Russia, and Canada) with the largest military strength display a more defensive approach regarding the Arctic territory than the others. USA has one of the three lines of interest in their Strategy as “*security interest*”. Russia is the only one that uses “*National Security*” in the title of the Strategy and Canada is clear throughout their Strategy that they do not want other actors to enter the Canadian territory.

The level of democracy does not in general seem to affect the Strategies. Instead Russia, perhaps surprisingly, present a high level of interest to preserve the indigenous population in the Arctic, to let them continue with their cultural

interests. There are not many traces to be found in the Arctic Strategies of whether the States belong to either NATO or the European Union. This may be due to the fact that the Strategies are national and present the national interest in the Arctic region. It may also indicate that the States does not view this as an area relevant to intergovernmental organisations. My impression is that the Arctic States use defence strategies in their Arctic Strategies to send out the message that it shall not be easy to gain access to the Arctic. This displays an almost protectionist attitude illustrated by the use of deterrence strategy in this pre-entry phase. But if the competitors can climb the deterring barriers it will not be enough to gain access to the Arctic, they must meet the requirements that the (other) Arctic states has set up, otherwise they will meet the shakeout strategy and be out of the market in that stage instead.

In the years to come my prediction is that the Arctic will be more present on the agenda not only for the Arctic States but globally, and that there might be a change in the way the Arctic States use defence strategies in their Arctic Strategies. The nearby period will tell how the Arctic will be continuous exploited and if someone will break the barriers that have started to be built by the Arctic States meanwhile more States will direct their interest to the Arctic region.

It is possible to draw conclusions from the business economic perspective in the area of political science. A theoretical challenge that I had with the study was the use of a business economics theory in the area of political science. Even though I used another method than Ehrmann *et al.*, I felt that it was possible to complete the study, and even in an area as the Arctic where I found that the “market” still is under establishment. The results of this study indicate that the prevailing globalisation make it possible to view countries in a region like firms on a market when it comes to the way they defend their positions and strengthen their interests towards competitors. The interdisciplinary study gives an understanding to the relationship between conditions of the “market” and the strategies used by the actors on the geopolitical arena.

## 6 Future research

To continue the research in this area it might be designed in many different ways, a change of the participating states could be made in other interesting geographical areas where similar policy areas could be adopted; environment, economy and security to see how states act in an environment similar to the one in my study and if conclusions can be drawn from the results.

In this study, only the eight Arctic States were used but the possibility to extend the study and use more and other actors may well be done. The demarcation that I used was to only look at the states defined as Arctic. There are though other actors, states and organisations that have an interest in the Arctic region possible the ones that are observers in the Arctic Council. To do a comparison between the Arctic States Strategies and other states Strategies to create a study with possible differences in the result. The qualitative research might be changed to a quantitative study when more actors are compared (Hopkin in Marsh – Stoker (ed.) 2002:258 *ff.*).

For a future study other values can be added to make a broader research, and such variables could be culture and history of the actors that are studied and the effect that it have on the actions taken by the actor in the market. Norms, values and influence are other factors that can be added in a future study. If a similar study is to be done, another option is to use other defence strategies such as the influential to see if the use is similar, or if there are differences to this study's defence strategies.

To do a more concrete game-theoretic study of the Arctic and look for cooperation or egoistic actions by the actors through a “prisoner’s dilemma” can be designed and based on the study Robert Axelrod do in his book *The Evolution of Cooperation* (1984).

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