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Iceland's Economic Security Challenges

Plight, Policy and the "Small State" Model

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Abstract

This dissertation investigates how far Iceland's economic security challenges can be identified and understood within a "small state" model, as well as to offer a comparative perspective on where Iceland differs from standard models in its handling of economic security and its choice of possible solutions. The analysis begins by examining each of Iceland's main challenges and opportunities in ensuring the necessary supply of energy and food products. The nature of Iceland's efforts to ensure general economic and financial viability will then be explored, focusing in turn on the fish industry, energy-intensive industry and the tourism sector. Finally some of the state's economic characteristics will be examined and placed in a small state context. The conclusion is reached that most of Iceland's economic challenges can be seen as being typical for European small states, with the exception of two respective economic characteristics of the state. One is Iceland's economic reliance upon on a small number of primary branches of production and and hence on natural resource management. The other is its international status, as Iceland resides outside of economic defense alliances, leaving it on its own without solid economic shelter.

Útdráttur

Viðfangsefni þessarar rannsóknar er að kanna að hvaða marki megi þekkja og skilja öryggisáskoranir Íslands í efnahagsmálum í samhengi smáríkjafræða. Fjallað er um það með hvaða hætti Ísland skilur sig frá evrópskum smáríkjum þegar kemur að meðhöndlun stjórnvalda á efnahagsöryggishugtakinu og hvað geti legið þar að baki. Greiningin hefst á því að athuga hverjar helstu áskoranir og möguleikar Íslands eru við að tryggja nauðsynlegt framboð orku- og matvælaafurða. Því næst er velt upp hvaða ályktanir megi draga af þeirri vegferð að tryggja efnahags- og fjármálalegan lífvænleika helstu útflutningsgreinanna. Loks eru skoðuð nokkur af efnahagslegum einkennum ríkisins og þau sett í samhengi við raunveruleika evrópskra smáríkja. Komist er að þeirri niðurstöðu að efnahagsáskoranir Íslands geti að meginefni til talist dæmigerðar fyrir smáríki ef frá eru talin tvenn efnahagsleg einkenni. Annars vegar er til að taka hagskipulagið sem grundvallað er á fáeinum frumatvinnugreinum og nýtingu náttúruauðlinda. Hins vegar er alþjóðleg staða Íslands utan efnahagslegra varnarbandalaga, án áreiðanlegs efnahagslegs skjóls, sem uppbygging hagkerfisins hefur átt þátt í að móta.

Preface

This thesis is submitted in partial fulfillment of the requirements for the degree of Bachelor of Arts in Political Science at the University of Iceland. It comprises 12 ECTS credits and is handed in during spring semester 2014. Deep gratitude goes to my advisor professor Alyson J.K. Bailes for taking me on with this project. Her advice, commitment and encouragement were invaluable throughout the writing process. I also wish to express appreciation to members of my family for our enlightening debates and their support throughout my studies at the political science faculty of the University of Iceland.

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(I.) Introduction

In recent decades a sub-field to International Relations, namely Security Studies, has come under sustained pressure to widen its scope of enquiry to address the challenges of a transformed geopolitical environment in the wake of the Cold War. The field has had to face the onslaught of dissatisfied scholars who criticized those of their colleagues focusing solely on the military dimension of security, and advocated bringing non-military dimensions onto the agenda, including the economy.

Yet, an in-depth overview of the field suggests there does not appear to be a single analytical framework accepted for economic security worldwide, in spite of the impressive output of research in recent years. Given that critical scholars with divergent views and backgrounds have continually approached the concept from different perspectives, its contested nature becomes apparent.

Generally speaking, the concept of security implies a sense of protection, safety from harm or indeed even survival in the face of some kind of threat. From the perspective of a small state, the prospect of pursuing economic security at the state level is extremely daunting, not least if one accepts the dictum of Thucydides: “the strong do what they have the power to do and the weak accept what they have to accept” (1972, 302). To put it another way: as permanent security consumers, small states have had little to offer the great powers and therefore they also have limited room for manoeuvre when pursuing strategic goals - including those relating to the economy (Wivel, Bailes and Archer, 2014, 3-26).

Upon a closer look, however, small states such as Iceland may be seen as particularly fascinating for the new insights they offer into international politics (Simpson 2014, 167). Consider the way Dózsa (2008, 95) explains how their token of success has so far been their ability to turn negative geographic, social and economic attributes to their advantage. If their strategic environment is dynamic in nature and ever-changing, so are their opportunities and incentives to engage in the creation and maintenance of non-military security orders.

Iceland is used as a test-case in this thesis to explore both the challenges and possibilities of “small state” status under a broad modern security definition. The analysis will cover one of the non military sectors that has gained rising academic coverage in recent years, namely: economic security.

The aim is to investigate how far Iceland's economic challenges can be identified and understood within the "small state" model, as well as to offer a comparative perspective on where Iceland differs from standard models in its handling of economic security and its choice of possible solutions. This will entail an assessment of the state's challenges in ensuring security of supply, with special emphasis placed on the issues of food and energy. The meaning of Iceland's efforts to ensure general economic and financial viability will then be explored, focusing in turn on the fish industry, energy-intensive industry and the tourism sector. Finally, a relevant selection of small-state characteristics will be examined, including economic openness, natural resource reliance and institutional shelter.

A number of conditions influenced the subject selection. Iceland's geographical location in the North Atlantic, the absence of traditional military threats and heavy reliance on natural resources all seemed to provide a distinctive opportunity for research. Iceland's experiences of the global economic downturn of 2008 which left it stranded on its own, and the fact that the state is the only purely European "small state" that has thus far chosen to reside outside of the European Union, also played a part in determining this choice. The Icelandic case is further made interesting by general debates on hotly contested issues, which are given considerable weight in this study. These include fisheries management, the boom in energy-intensive industry, the recent influx of tourists and Iceland's negotiations for accession to the European Union.

Method

The qualitative research method is used for analysis in this thesis, supported by the use of numerical and empirical data. Ragin and Amoroso (2011, 111-134) describe the qualitative research method as a "basic strategy of social research that usually involves in-depth examination of a relatively small number of cases. Cases are examined intensively with techniques designed to facilitate the clarification of theoretical concepts and empirical categories".

References

Sources in both the Icelandic and English languages are taken advantage of in this thesis. Essentially, it builds upon textbooks, monographs and journal articles as secondary literary sources, while also making use of primary factual sources such as statistics, published reports by government agencies and other institutions when applicable.

Structure

The thesis will be divided into three parts. The first section will lay out the theoretical framework, paying attention to some of the more important theories of International Relations and its sub-field of Security Studies whilst presenting a general small state perspective and the concept of economic security. The second section will explore what economic security represents for Iceland in practical terms by addressing its economic development prospects and challenges in the framework of its specific cultural, historical and social reality, and comparing the findings with a typical small-state selection of characteristics. The final section will be devoted to summarizing the findings.

(II.) Theoretical Framework

(II.I.) Approaches in International Relations

(II.I.I.) Realism

Virtually all states place great value upon maintaining their international security, that is remaining free of coercion and existensial threats. Realism is one theoretical branch within IR; a broad family of theories and arguments that address how state security is achieved and possibly combined with other goals (Glaser 2010, 16). The grand theory of Realism is widely accepted as the dominant theoretical orientation within international politics over the last two millennia.

Proponents of Realism claim its ideological foundations traced its origins back to the works of Thucydides, Sun Tzu, Niccolò Machiavelli, Thomas Hobbes and Jean-Jacques Rousseau. It has become known as 'the tradition of pessimism' for it holds a rather negative view on human nature both at the individual and systemic levels (Haynes et. al 2011, 114-131). Or as Machiavelli famously asserted in his book about principalities, the Prince, in the 16th century:

> *in general men are ungrateful, inconsistent, hypocritical, fearful of danger, and covetous of gain; whilst they receive any benefit by you, and the danger is at a distance, they are absolutely yours […] but when mischief is at hand, and you have present need of their help, they make no scruple to revolt (Machiavelli 2011, 75)*

Drawing on Machiavelli's ontology of human kinds, the unifying theme around which all modern realist thinking converges is that selfish nation-states are the primary actors in politics, and it gives little or no attention to individual state's political systems, their leaders, and other specific attributes of their domestic political systems. This view implies an inherent security dilemma of international politics. Considering that states find themselves in a situation of anarchy and hostility such that their security cannot be taken for granted, Realism emphasizes that they exercise their power in a rational utility-maximizing way. This powerful account it provides can, to some extent, explain the theory's dominance in the study of politics (Dunne and Schmidt 2008, 92-103).

In the absence of an overarching authority, power is the defining feature of the international environment that states face - an environment characterized by war and violence. For Realists, states need to rely on their own capabilities to achieve their

international goals and guard their security interests. Key elements of power include a state's wealth, population, and technological sophistication. Therefore, more powerful states can build larger military forces.

On this basis, Realism attempts to explain which particular security strategy a given state may and should choose. In the broadest terms, competitive approaches for achieving security include building up arms, searching for allies, and using military force. In contrast, cooperative approaches include negotiating arms-control agreements and exercising unilateral restraint in the acquisition and use of force (Glaser 2010, 15-34).

For the purposes of this thesis, the timeless wisdom of Realism is invaluable. It is particularly helpful both in looking upon the position of Iceland in an anarchic international system, and in assessing the country's basic national security interests. It is relevant as well for recognizing Iceland's predicament of being a small state and discussing the strategies it might pursue internationally in order to compensate for its limited capabilities.

(II.I.II.) Liberalism

The deep embeddedness of Liberal values and institutions in the western world is becoming increasingly more apparent as they go hand in hand with democracy. Although many writers have tended to view it as a theory of government, the explicit connection between Liberalism as a political and economic theory, and Liberalism as a theory of IR, is becoming increasingly more apparent (Dunne 2008, 110). The analytical approach of Liberalism, which emphasizes individual rights and equality of opportunity, is said to be the dominant ideology of globalization (Haynes et al. 2011, 110-133) and the dominant perspective of contemporary international politics:

> *[Proponents of Liberalism are] generally united by their support for a number of principles, including extensive freedom of thought and speech, limitations on the power of governments, the rule of law, the free exchange of ideas, a market or mixed economy, and a transparent form of government (Ask Define 2014)*

The ideological foundations of Liberalism can be traced back to the Enlightenment, in particular to the works of philosophers John Locke and Immanuel Kant (Morgan 2010, 36), and John Stuart Mill, Jeremy Bentham, Adam Smith and David Ricardo (Haynes et al., 2011, 135). Having a strong claim to being the historic alternative to Realism (Dunne 2008, 110), the Liberalist tradition in IR is associated with theories that emphasize the importance of processes, a plurality of actors and issues other than war and violence (Haynes et al., 133).

Contrary to Realism, it is optimistic about politics, economics and the broad prospects for international politics, including cooperation among actors and the chances for humanity to live in a peaceful world (Morgan 2010, 35). While Liberalism still identifies states as the most important actors in the political system, it considers other actors important as well: for instance international and non-governmental organizations, multinational corporations, and a range of domestic actors. Similarly, Liberalism accepts the nature and anarchic structure of the international system but deems them not as important as the power and preferences of domestic actors and the nature of a state's political system.

These beliefs lead to the view that states are not all identical entities, but rather, that their differences in character are simultaneously reflected in international politics. Unlike Realism, Liberalism thus does not perceive states as unitary or monolithic actors. While acknowledging that 'States as states' have some interests and concerns of their own, it maintains that the more important factor is the question of "who rules", which involves a struggle among domestic actors for power (Morgan 2010, 35-36).

For the purposes of this thesis the approach of Liberalism is of relevance for it emphasizes the importance of international cooperation. For Iceland, as it is already a member in a variety of international organizations, deeper and more intensive regional cooperation must always be maintained as one alternative of a security strategy. Liberalism also gives prompt to look at the type of political system that is in place and the kind of policy-making system and methods that are being applied. Thus it assists in analysing the conflicting forces of special interests and how they affect the processes of policy-making.

(II.I.III.) Constructivism

Constructivism is a leading theory perspective within IR and Critical Security Studies. It is widely recognized for its ability to capture important features of global politics (Barnett 2008, 162). The theory of social Constructivism is broadly concerned with the relationship between agents and structure, and is described as addressing "human consciousness and its role in international life" (Ruggie 1998, 856). It looks upon the cultural world as being a social and not purely material construct, as it refers to,

> *both a set of evaluative standards (such as norms and values) and a set of cognitive standards (such as rules and models) that define what social actors exist in a system, how they operate, and how they relate to one another (Katzenstein 1996, 6)*

For Constructivists, changing the way we think about international relations can assist in achieving greater international security (Baylis 2008, 235). The approach of Constructivism, which emerged in the late 1980s, owes its origins to earlier philosophical and sociological modes of thought. In particular, it builds upon the works of Émile Durkheim, Immanuel Kant and Max Weber. Constructivism quickly gained credibility and popularity due to the end of the Cold War, the enduring insights of sociological and critical theory, and the ability to generate novel accounts of world politics (Barnett 2008, 161).

Although it is not a substantive theory, scholars of Constructivism generate their substantive claims by delineation of who are the principal actors, what are their interests and capabilities, and the content of their normative structures (Barnett 2008, 162). This method offers an alternative approach to reality, and thus a substitutive view of anarchy and security. It goes beyond the rationalist theorization of the classical approaches, which neglect ideational forces in favor of material ones, by arguing that the world of politics is also socially constructed. It highlights the importance of ideas, identity, norms and interaction in the international system and reveals how "the human world is not simply given and/or natural but that, on the contrary, the human world is one artifice; that is 'constructed' through the actions of the actors themselves" (Kratochwil 2001, 17). Or as Alexander Wendt (1992) neatly claimed; "anarchy is what states make of it".

For the purposes of this thesis, the insights of Constructivism are helpful as they provide an alternative view to the traditional Realist one. Rejecting the traditional metaphysics of a state's behavior, emphasizing human consciousness, ideas, identities and norms etc., could work in favor of small-state Iceland as it seeks to create and maintain security orders at the domestic level while also attempting to exert influence internationally through the more non-traditional ways such as norm entrepreneurship.

(II.II) Security Studies : Moving From Traditionalism

(II.II.I) Critical Security Studies

Critical Security Studies (CSS) is a label that does not present us with a single set of views or an approach to security, and has proven reasonably resistant to a clear definition. The fact of the matter is that traditional military threats to most of the European states (including armed conflict and the possibility of nuclear war) were reduced significantly with the end of the Cold War (Mutimer 2010, 102). In response, a radically widened agenda of security developed with

scholars challenging the prevailing orthodoxy, claiming the security concept to be "essentially contested" (Baldwin 1997, 6-12). In particular, the scholarship of CSS indicated a desire to move beyond the strictures of security as it was studied and practiced in the Cold War period and to form a challenging critical perspective (Mutimer 2010, 85). As Buzan, Wæver and de Wilde (1998, 1-20) have noted, this widespread dissatisfaction with traditional security studies (SS) among scholars of the field laid the ground for a debate between the proponents of "wide" (CSS) and "narrow" (SS) approaches - while also acknowledging the rise of the economic agenda in the 1970s as a stimulative factor.

The standard assumption of the conventional Westphalian SS approach is that people are secure if the state is secure. On this view, SS "may be defined as the study of the threat, use and control of military force" (Walt 1991, 212). Mutimer (2010, 88) writes that adherents of CSS wanted to provide an alternative account to this. They wondered about the times when states ignored the security of some or all of their people; when they actively oppressed some of their people; or when the state lacked the capacity to provide security for its people.

Initially, Krause and Williams (1997) set out the agenda for CSS. It would question the referent object of security, admitting that while states are important, human beings can be secured and rendered insecure in ways other than by states and military might. Looking upon security as more than just military security would allow consideration of what rendered a broader set of referents insecure, and how security was to be achieved, both for the state and other referent objects. The objective was thus to change the way security was studied (Mutimer 2010, 89).

(II.II.II) Human Security

SS today, and CSS, often place the security of people at the center of their critique of state-centric and military security. Indeed, for its proponents, human security is the end project for which state-centric security is (one of) the means (Kerr 2010, 125). Its objective has been defined as safeguarding "the vital core of all human lives in ways that enhance human freedoms and human fulfillment" (Acharya 2008, 493).

The term, 'Human security' had its origins in policy statements of the United Nations in the 1990s, and in particular the 1994 Report of the UN Development Programme (UNDP) (Acharya 2008; Kerr 2010, 122). It is 'human' in that it focuses simultaneously upon people as individuals and as communal groups. It is 'security oriented' in that it centers - at least initially - upon freedom from fear, danger and threat (Thakur 2004; UNDP Report 1994; 22-33).

The UNDP Report (1994, 22-33) acknowledges that the catalogue of threats to human security is extensive but indicates that economic security should be regarded among the most important. While the concept of human security has only recently been introduced into SS, the idea that people ought to be secure in the conduct of their daily lives is not new (Kerr 2010, 125). In fact, the arguments made by human security and CSS scholars for deepening and broadening the idea of security are driven to a large extent by a vision of the conditions that ought to pertain for people to be secure (Kerr 2010, 122). The old political philosophy of Liberalism still continues to be guided by a an individual human-centric focus, and defines conditions - such as freedom and equality and adoption of universal human rights - that are necessary for people to be secured.

(II.II.III) The Copenhagen School

The Copenhagen School (CS), represented in the works of Barry Buzan, Ole Wæver and Jaap de Wilde, has played an important role both in broadening the conception of security, and in providing a framework to analyse how an issue becomes "securitized". By adopting a multi-sectoral approach to security, not unlike the sectoral categorization in the UNDP report of 1994, it represents a move away from traditional SS and the latter's focus on the military sector (Haynes et al 2011: 502).

Another way in which the CS contributed both to broadening the security concept and to a more modern critical approach was through its theory of 'securitization'. This describes a process by which a particular issues become a concern of security, passing through a couple of stages. First, an issue is identified (that is, described in a "speech act") as an existential threat to the national security of a state, calling for emergency actions beyond the normal procedure of politics. The process is completed when a relevant audience has been convinced of the existential threat, clearing the way for emergency powers to address the threat as defined by the securitizing actor (Buzan, Wæver and de Wilde 1998; Emmers 2010, 138-142).

For the purposes of this thesis, the Copenhagen School's multi-sectoral approach, in addition to the categorization set in the UNDP Report of 1994, provides a basis for investigating what economic security means in practical terms for Iceland. This is appropriate *inter alia* because Wæver and his colleagues were writing consciously with (Northern) Europe's own security challenges and approaches in mind, while the UNDP concept of human security was aimed at the developing world.

The analytical tool of securitization is helpful as well, as it makes it possible to investigate whether a given issue or set of issues is being framed (and by whom) as an existential threat, and whether such processes of securitization are being successfully completed with the acceptance of relevant audiences.

(II.III) Small State Theory

(II.III.I) Measures of Size

No widely accepted theoretical perspective on defining the size and security of small states can be said to exist. The relative concept of 'smallness', has continually undergone revision, reflecting the character of the international system at a given time (Commonwealth Secretariat 1997, 8). Any chosen definition is therefore to some degree arbitrary. It should, however, be stressed here that the categorization of states into small and great does not coincide with that of strong and weak, as the former is a distinction of quantity and the latter of quality (Neumann and Gstöhl 2006, 8).

Conventionally, the most commonly used variables for measuring the size of a state focus on material power capabilities, or proxies, including the number of inhabitants, geographical size, economic capability and military capacity. These follow from the position of the Realist school of IR, and have been taken as the best criteria for analysing and predicting the behavior of small states in the international system (Thorhallsson 2006, 7-31; Wivel, Bailes and Archer 2014, 3-26).

As a starting-point for evaluating the validity of different theoretical perspectives in defining the size of states, most of them point to population size as the most important variable (Thorhallsson 2006, 7-31). For instance, the Commonwealth Secretariat states that for small countries, "a high correlation exists between population and other measures of economic size such as total GNP and total land area" (Commonwealth Secretariat 1997, 8), making it reasonable to define small states by population criteria alone. Others have argued for making a distinction between economically developed countries and developing countries, a well-known example being the study by David Vital (1967, 8) where he set the rough upper limits of the class of small states at 10-15 million people for those of the former group, and 20-30 million people for the latter.

Yet, as Wivel, Bailes and Archer (2014, 3-26) write, the notion of 'small state' has also been used to denote the type of micro-states, in addition to small states in the developed world and small states in the third world. In fact, micro-states are sometimes defined as having a population size "so diminutive as to invite comment" or somewhere around 100.000 and 1.5 million inhabitants (Wivel, Bailes and Archer 2014, 3-26).

When it comes to definitions based more generally on power possession, it is true that from a legal point of view, all sovereign states, great or small, are equal before the law. However, when analysed politically, they are far from equal (Neumann and Gstöhl 2006, 4). On this basis, Browning (2006, 669) states that size "has generally been connected to capability and influence. Whilst being big is correlated with power, being small has been viewed as a handicap to state action, and even state survival". Along the same lines, Olafsson (1998) has argued that,

> *small states have no significant armed forces and lack of political or economic power [and are therefore] suboptimal from the point of view of security and face significant problems of existing in an unstable world of larger powers.*

At least three merit points of the traditional approach to defining small states in terms of capabilities can be readily identified. First, it "informs us of the absolute and relative limitations on these states' capacity to handle different types of challenges" (Wivel, Bailes and Archer 2014, 3-26). Second, setting a absolute and universal threshold between big and small states has the benefit of creating a clear and applicable definition of small states. And third, it allows one to draw on the comprehensive, and predominantly Realist IR literature on power and security to identify the special security challenges of small states (Wivel, Bailes and Archer 2014, 3-26).

Conversely, it has been noted that such power possession definitions of small states have some disadvantages. First, they naturally lead to a focus on the military dimension of security, which risks underestimating the opportunities and contribution of small states internationally. It is obvious, but does not tell us much, that conventional military power is where small-states are the weakest. Secondly, a focus on quantifiable objective criteria is of little use in analysing the real challenges and opportunities for small states' security, as the cut-off line between small states and great powers will always be arbitrary. And third, such calculations are based on the precondition that it is indeed possible to quantify and measure power (Wivel, Bailes and Archer 2014, 3-26).

In a more positive or cooperative sense, Rothstein developed a definition of small states with a psychological as well as a material dimension that acknowledges the limitations of power possession definitions. He proposed that,

> *a Small Power is a state which recognizes that it can not obtain security primarily by use of its own capabilities, and that it must rely fundamentally on the aid of other states, institutions, processes, or developments to do so; the Small Power's belief in its inability to rely on its own means must therefore also be recognized by the other states involved in international politics (1968, 23-24).*

Similarly, Wivel, Bailes and Archer (2014, 3-26), in their textbook *Small States and International Security: Europe and Beyond*, move away from the quantifiable power possession definition of small states to one that is qualitative, relational, and addresses the power that they actually aspire to express and exert. Understanding that the concept of small states is best used as a focusing device, the authors adopt a definition of small states "accordingly as the weaker part in asymmetric relationship, unable to change the nature or functioning of the relationship on their own" (Wivel, Bailes, Archer 2014, 3-26). Subsequently, small states are "stuck with the power configuration and its institutional expression, no matter what their specific relation to it is" (Mouritzen and Wivel 2005).

(II.III.II.) Measuring the Size of Iceland

Thorhallson (2006, 7-31) realized the limitation and insufficiency of the traditional proxies in measuring the size of a state, and developed a conceptual framework that could better describe how to measure the size of a state and evaluate its power potential. This chapter will measure Iceland with his six proposed categories: fixed-, sovereignty-, political-, economic-, perceptual- and preference size.

Fixed size which has to do with the characteristics of states that tend to be relatively constant and can be measured in actual terms. It comprises the rather traditional proxies of population size and geographical territory. On the one hand, the size of population is important as it may indicate the potential economic and military capabilities of a state and lay the foundation for human capital. On the other hand, geographical size is important as it gives clues to a state's potential natural resources, but also to the cost of conducting policies with a small population and state apparatus in a large area.

Looking upon Iceland in terms of fixed size, with its small population of roughly 300.000, the most sparsely populated state in the whole of Europe (Indexmundi 2013), it can rather easily be concluded that the state possesses a very limited fixed size.

Sovereignty size embraces three features. First, it is asked whether a state is able to uphold its territorial sovereignty and whether its viability in this sense is questioned by others. Second, it considers whether a state is able to maintain a minimum state structure, and whether it is effective in forming a policy and executing it domestically. Third, it addresses whether or not the state has the capability to maintain a minimum presence at international level.

Thanks to being a geographically isolated island-state in the North-Atlantic, the situation for Iceland in terms of sovereignty size is rather positive. It is a challenge to imagine that the country's territorial sovereignty would be threatened in any but extraordinary circumstances, such as a major terrorist attack or a situation of World War. No major factors are identified that point to Iceland's inability to uphold a minimum state structure or to form and execute policy at a domestic level. Finally, Iceland's active membership in various intergovernmental organizations (e.g. the North Atlantic Treaty Organization (NATO) and the United Nations (UN) suggests that the state is able to maintain a minimum presence internationally.

Political size comprises military capability; administrative capability and cohesion. First, military capability is associated with military expenditure and the technological sophistication of armed forces, which determine a state's ability to guarantee its own defense and its potential for expansion. Second, administrative capability refers to the strength of a state's central administration; for instance its skills in running the state and engaging in negotiations with other states. Finally, cohesion has to do with domestic cohesion and the ability to show a united front at the international level.

In terms of military and administrative capability, Iceland must be considered vulnerable as the state does not employ any armed forces, and relies on bilateral agreements and membership in international organizations for national defense. It also has limited financial resources for its administrative system. However, when it comes to assessing domestic cohesion generally, it is fair to regard Iceland as being quite strong.

Economic size consists of three features; GDP, market size and development success. Thorhallson notes that GDP measures are sometimes combined with population figures in per capita income measurement. Market size may determine the openness of an economy, its production structure, concentration of trade etc. Development success refers to successes or failures of economic policies, and how they affect actors' notion of size and capacity.

Measured by the criteria of nominal GDP income, market size and recent development successes, Iceland must be considered to be weak in terms of economic size. The state has very low population figures and thus has a small nominal GDP and market size, although it ranks highly in terms of GDP *per capita*. The effects of the global economic downturn of 2008, and the limited success in handling them and learning from them subsequently, also suggest a low ranking for Iceland in terms of development successes.

Perceptual size considers the perception among domestic and international actors of a state's size, and the internal and external capacity of its authorities to 'do whatever they like' (Thorhallsson, 2006, 25), when compared to other states. Six factors construct a notion of a state's size and influence its behavior: the views of the domestic political elite; the electorate; other domestic actors; international actors; foreign political elites and international organizations.

Thorhallsson argues that various actors in Nordic states have in the past considered their states to have considerable internal and external capacity to 'do whatever they like'. This is in part due to their high level of welfare and economic prosperity which has also been in place for Iceland. Nonetheless, it would be accurate and probably beyond controversy to argue that Iceland differs considerably from the other Nordic states overall, *inter alia* in both internal and external capacity. Such a small state's ability surely is weaker when it comes to its ability to ensure domestic interests within an international decision-making body, to participate in the international arena and to undertake responsibility.

Finally, Preference size concerns three features; a state's level of ambition, its priorities and its ideas about the international system. States differ widely when it comes to their level of ambition, as Thorhallsson points out. Some of them have more ambitious politicians than others, and succeed despite observations about them not having the necessary capacity to deliver.

It may be asserted that during the 20th century Iceland was one such example: a state that came from being among the worlds poorest states to becoming one of its richest, and which up to 2008 also claimed to have won important victories (the cod wars) and achieved valuable innovations. However, taking into account the state's shifting priorities and its divided ideas about the international system, that led for instance to a sudden halt in its accession process with the European Union (EU), Iceland should be regarded as a somewhat problematic case in terms of Preference size.

(II.IV.) The Concept of Economic Security

Modern definitions of economic security are in themselves dependent upon fixed precepts and values (Hager 1982, 21) as economic security is clearly dependent upon other sectors of security and vice versa. Thus there does not yet appear to be a single analytical framework accepted for economic security worldwide, in spite of the impressive output of research in recent years (Kokštaitė 2011, 4).

One way to illuminate the growing interest in economic security analysis is to place it in a post-Cold War context that concentrates on the respective shifts in focus from politico-ideological competition to economic competition; from military superpowers to economic superpowers; and from geopolitics to geo-economics. In this way, one can clearly see how the interlinkages between economic policy and traditional security policy (or what Dent describes as the economics-security nexus) have become increasingly entwined in the post-Cold War period with the establishment of a new globalized world order (Dent 2010, 233-234).

On the other hand, it has been argued that the study of these interlinkages by political scientists (carried out in mainstream political economy literature) has come at the expense of the further advancement of more cogent theories and ideas about what exactly constitutes the pursuit of economic security in the international system.[1] A number of scholars have adopted a more critical position, placing emphasis on the problems that arise when seeking to separate the empirical domain of economic security from the economics security nexus, and asking whether economic security does not simply represent the 'securitization' of economic issues (Buzan, Wæver and de Wilde 1998).

Irrespective of debates on such questions and the broadening of the domestic-international interface in an era of globalization, academic discourses on economic security have remained largely separate in an established dyadic narrative: Macro- and Micro-level analysis. The former discourse concerns the 'international' state-level economic security that involves 'foreign economic policy powers' (FEP powers) (most often state actors) and their engagement with the international economic system. The latter discourse is predominantly associated with 'domestic' individual or household-level economic security, which is primarily concerned with safeguarding their livelihoods (Dent 2010, 240-252).

[1] See: Harris and Mack 1997; Soeya 1997; Sperling et al. 1998.
[2] See: Bailes, Rickli and Thorhallsson 2014; Bailes 2014; Vital 1967; The Commonwealth Secretariat 1997; 2000;

At the state level, it is worth paying attention to the conceptual approach advanced by Dent, which builds on his eight objective typologies that may be seen as presenting all definable pursuits of economic security. This approach applies a definition that emphasizes a threat-minimizing and opportunity-maximizing take on economic security. It involves:

> *safeguarding the structural integrity and prosperity-generating capabilities and interests of a politico-economic entity in the context of various externalized risks and threats that confront it in the international economic system (2010, 244-252).*

In this case, a politico-economic entity (agency) equals to an FEP-power (foreign economic policy power) with respect to its territorial economy as well as its transnational economic security interests. In turn, the structural integrity aspect of the definition refers to the maintenance of economic structures and the ability to meet the economic demands of agents located within these structures, during interactions in the global economy. Another definition of the concept, arguably not so different from Dent's definition, is offered by the Canadian Security Intelligence Agency. Its focal point is:

> *the maintenance of [those] conditions necessary to encourage sustained long-term relative improvements in labor and capital productivity and thus a high and rising standard of living for a nation's citizens, including the maintenance of a fair, secure and dynamic business environment conducive to innovation, domestic and foreign investment and sustainable economic growth (2004).*

By contrast, Micro-level definitions emphasize ready access to the means necessary to meet basic human needs. A typical one is provided in the UNDP report on human security from 1994 (focusing primarily on developing states) which requires an assured basic income for individuals, ideally from productive work or else through a social safety system. Further, it embraces the issues of food and energy security, while also recognizing the importance for individual economic security of creating and protecting jobs and maintaining the value and stability of real wages.

As opposed to the focus of such micro-level definitions, Buzan (1991, 192-197) challenges the notion that economic security can be studied as if it referred to an absolute value or a concrete condition - an achievable state of being, representing a realistic and political goal. Aside from the basic requisites for individual survival, he claims this perception to be false, and that "the pursuit of it is the pursuit of a chimera", implying that a more relativistic view needs to be taken of economic security.

Buzan prefers to locate the idea of economic security squarely in the unresolved and highly political debates about international political economy, concerning the nature of the relationship between the political structure of anarchy and the economic structure of the market. Arguing that the capitalistic reality of economic security is a slippery relativity combined with an intense nexus of contradictions and trade-offs, he goes on to note that almost nothing can be gained without something of comparable importance being lost (1991, 230 quoted in Buzan 1998).

(II.IV.I.) Specific Challenges for Small States

Turning to the economic security issues of small states - particularly from the macro-level perspective – it can be said that while each and every small state is unique, and needs to address its economic development prospects within its own cultural, historical and social realities, most of them share a number of common characteristics (Commonwealth Secretariat 2000).

Various scholars[2] have described how small states, including micro-states, are almost inescapably vulnerable at three different levels, and have discussed what strategic options are available to minimize the effects. First is the problematique of limited own resources (intangible or tangible) causing high dependence on strategic imports. Second is a narrow economic structure with few branches or 'wealth-producing pillars', while the third problem is excessive openness and vulnerability in the face of externalities. These include fluctuations in market price, that make small states struggle to operate with potentially weak national currency due to their import dependence (Bailes, Ricki and Thorhallsson 2014, 26-46).

Regardless of income level or economic structure, all small states face structural constraints to development due to their small size. In reality, no state can confidently expect to supply all its needs by domestic means. However, it is reasonable to note that the probability of the range of domestic resources being narrow is higher as the state in question gets smaller. Similarly, the higher a state's level of economic and social development, the greater will be the range of its needs (Vital 1967, 44).

[2] See: Bailes, Rickli and Thorhallsson 2014; Bailes 2014; Vital 1967; The Commonwealth Secretariat 1997; 2000; and Briguglio 1995.

Their level of remoteness or insularity - resulting for instance in higher transport costs - can also make it harder for such states to make use of foreign markets in order to compensate for their drawbacks of reduced competition and the way it affects incentives for efficiency and innovation (Commonwealth Secretariat 2000). As the imports required to satisfy their consumers' requirements such as for food and energy can lead to large trade imbalances, exports must be marketed to pay for these imports but also for the equipment, fuel and raw material etc. vital for domestic production. Limited competences may create the risk of over-dependence on a narrow range of exports for capital generation. This is evident for most European small states which rely upon two or three branches, commonly featuring tourism, while many also benefit from a type of industrial or technological specialty or a strong service sector. In turn, reliance upon international trade accelerates over-exposure to fluctuations in world price and the effects of globalization.

The degree of administrative insufficiency and incompetence in addition to the possibility of institutional failure is also greater in small states: weaknesses in their institutional capacities are a common constraint posing major challenges for them in responding to changes in the international trade environment. One of the most important problems to look at in this respect concerns the small manpower resource basis from which they must draw experienced and efficient administrators. A common outcome - particularly associated with small island states - is "brain drain" and social upheavals, resulting in their relying on larger states for certain specialized aspects of public administration, which may have negative effects (Brown 2010; Briguglio 1995; Farrugia 2007).

It is widely argued that international organizations have an important role to play in assisting small island states in their efforts to meet the required institutional capacity to maintain economic security. One point of reason is that capacity building in such states involves relatively high costs per capita due to indivisibilities in overhead expenditures. Further, utilization of international organizations is vital for them to be able to compete in world markets which, in turn, typically promotes economic growth and development (Farrugia 2007). On the other hand, Bailes, Rickli and Thorhallsson (2014, 26-46) write that smallness may also bring small states some benefits. Generally speaking, small states have a lower level of socio-economic complication and therefore simpler tasks of economic management. Smallness may also equip them with the flexibility to seek new niches in internationally and rapidly adopt new trends, which can allow them to prosper (Brown 2010).

Nevertheless, it remains true (at least in principle) that as small states are *de facto* stuck with their economic figuration and expression on account of their size, the ideal strategy that they may apply to overcome the above challenges is to conduct extensive foreign trade by diversifying their export base, mobilizing industries or other income sources that are not dependent on the size of their economies; or, perhaps less attractively, to take measures to reduce dependence upon imports. Other factors associated with the domestic agenda may however also prove to be crucial for small states. They could include social cohesion, established corporatist decision making systems founded on a compromise among economic partners, good governance to avoid waste through corruption and a stabilization fund to even out fluctuations (Wivel, Bailes and Archer 2014, 3-26).

Alternatively, small states can seek economic shelter and 'cushion' their worst shocks by a degree of union with neighbors or within an institutional framework; a structure of long-term economic commitments and common rules such as regional and international organizations provide. While it may be true that little if anything can substitute for a sound strategy for economic management in small states, regional integration is now being more prominently presented as being essential for any small state. Considering that this option has been adopted by every small state in Europe - except for Norway, Switzerland and Iceland which however have partially engaged with it through the EEA – its central importance for economic consolidation and relevant institution-building may become even clearer, in today's context of open international trade (Wivel, Bailes and Archer 2014, 3-26).

(III.) Iceland's Economic Security Challenges

(III.I.) Securing Strategic Supplies

(III.I.I.) Food

When investigating what economic security means for a state and its habitants, it makes sense to engage immediately with the issue of food security as it represents a condition for meeting all other conceivable standards of economic security. Not surprisingly, definitions of food security have proved to be dynamic over time, and have changed to accommodate new perspectives and problems. Perhaps the most widely accepted definition is the one formulated by the World Health Organization (WHO 2012), which identifies three criteria that an individual, community or country must meet in order to be considered "food secure", i.e. the *availability, access* and *use* of food (Butrico 2013).

While these criteria might seem to be largely a concern of the world's poorer populations, the issue of food supplies is just as relevant for the functioning of developed societies (Bailes, Jóhannsson 2011). In fact, most countries today - both developed and developing - are importing more food than they produce (Valdes & McCalla, 1999). Moreover, nearly two thirds of all industrialized countries rely on food imports to feed their populations (Ng, 2008).

In the case of Iceland, it is particularly interesting to explore a fourth factor that has been identified by the U.S. Agency for International Development (USAID) as necessary for food security: i.e. *safeguards against* risks of *disruption* (Webb & Rogers, 2003). Mutually linked with both the micro- and macro-levels of economic security, this factor highlights some of the easily overlooked threats resulting from heavy reliance on imports and the lack of an internal, sustainable food system that can render societies insecure in their food supply. These include threats of import interruption, which may lead to food shortages and even starvation if import systems are not quickly restored (Butrico 2013).

For most of Iceland's history the nation has been self-sufficient, providing its food through the utilization of available resources. This changed significantly, however, during the last centuries when Iceland increased its interactions within the global political economy. Most recently, during the last fifty years or so, research shows that domestic trends in food consumption have moved considerably away from locally produced food and towards a

greater variety of imported foods (Bailes and Jóhannsson 2011). While reliance on imported foods (or food with imported base ingredients) has significantly increased, domestic production of food has proportionally diminished (PHII, 2009). This development is in large part due to the relaxing of import limitations in Iceland, greater purchasing power by individuals, and a change in lifestyle and diet (Bailes, Jóhannsson 2011; Jóhannsson 2011).

Although food production remains an integral part of the Icelandic economy - accounting for nearly half (45.5%) of the total value of manufactured goods (Statistics Iceland 2011d) - most of the produce is exported for profit (with fisheries being the largest sector by far) and is therefore not available in the domestic market for consumption by Icelanders. This is evident in the fact that in 2010, less than one-third (only 87.6 billion ISK of the 303.1 billion) of the value of produced food and beverages were not exported, but rather stayed within the economy (Statistics Iceland, 2011c).

Including imported foods and beverages, this leaves us at first glance concluding that the Icelandic economy provides itself with more than half (64.9%) of its total food supplies (Statistics Iceland, 2011c). However, this figure is misleading in that it does not take account of the vital role played by imports and supplies such as fuel, fertilizer, seedstock, fodder, food ingredients, etc. in enabling domestic production. Accounting for their role, it is estimated that the economy is reliant on imports for 95% of its total food supply (Butrico 2013).

In turn, heavy reliance on imports coupled with a lack of internal food production infrastructure means that if Iceland's import system should be disrupted in any way, the adequacy of food production and supply would be under threat, placing Iceland at a high risk of food insecurity (Ng, 2008). Some of the major potential internal and external risks of disruption that have been mentioned for Iceland include: natural disasters, energy shortage, failure in distribution, oligopoly and financial factors, pollution, animal disease, climate change, market distortions, terrorism and sabotage, and external pressure as well as wars and conflicts (Bailes and Jóhannsson 2011).

According to the research conducted by Jóhannsson (2011) the term food security has most actively been used by advocates of the agricultural sector since 2008, who have adopted a 'securitizing' language to further their demands and protect the interests of domestic producers; they have also used it to make a case against entry to the EU (Bailes and Jóhannsson 2011). Jóhannsson believes that in reality, three critical events have done the most to encourage a proper dialogue on food security in Iceland.

The first event was the re-evaluation of non-military security issues carried out in the risk assessment report (IRAR) for Iceland commissioned in 2007 and published in 2009. While far from exhaustive on the subject of food security, the report provided a general assessment on the situation in Iceland and proposed ways for improvement concerning stocks and reserves, strategies, contingency plans, and general preparedness.

The second event that sparked dialogue was the threat to food security inflicted by Iceland's financial meltdown in 2008, when the sharp depreciation of the ISK lessened the purchasing power of individuals and the shut-down of the credit market created difficulties for companies in financing imports, resulting in currency shortage and disruption of trade.

Finally, the 2010 sub-glacier volcanic eruptions in Eyjafjallajökull and Fimmvörðuháls as well as the 2011 Grímsvötn eruptions stirred awareness of the food security issue by bringing much of Northern-hemisphere air traffic to a halt, thus causing failures in the distribution of food - in addition to import delays, ash pollution and animal disease – that interfered with the status of food supply.

Prior to these relatively recent events, discussions and understanding of the matter of food security in Iceland were virtually absent (Jóhannsson 2011). Surprisingly, the government authorities seem to have done little to secure an internal food supply to protect against future threats, as the country continues to rely extensively on imports; nor have official policies been developed to ensure adequate reserve stocks, as in most other Nordic and EU countries. It may even be argued that Iceland illustrates a general lack of safeguards against the risk of a variety of disruptions (Butrico 2013). Still today, there seems to be a dire need for constructive dialogue on the issue of food supply.

Three steps have been suggested for reducing dependence upon imported food, or food with import-based ingredients with the aim of improving food security and overall economic security in Iceland (Bailes and Jóhannsson 2011). First is to set in place a well researched and discussed policy on what and how much food the country should produce. For reducing the risk of import interruptions, one option could aim at encouraging domestic production through subsidies, for instance in horticulture, pig-, poultry- or grain farming. Second is to correctly apply the concept of security to these questions in order to identify relevant weaknesses, vulnerabilities and risks in the food sector. Finally, measures should be taken on the basis of such an analysis, drawing on lessons from abroad and good practice in neighboring states, both for the short and long term.

(III.I.II.) Energy

Exploring energy security as a part of economic security is important as it is one of the most integral factors in the maintenance of a state's economic structure. The rising global demand for energy is also raising the profile of the issue, as attaining sufficient energy supplies is steadily becoming a more important and challenging project for political actors than ever before (Raphael and Stokes 2010).

While interruptions of energy supply can cause major financial losses and even damage the health and wellbeing of individuals, a secure energy supply is especially vital for providing solid economic growth and preserving levels of economic performance (WCA 2013). A generic definition is provided by the International Energy Agency (2013) that includes the issues of *availability*, *affordability* and *reliability* in its criteria for what needs to be ensured in order for energy security to be reached. Sources for primary energy usage in Iceland can be divided into two categories: internal, renewable sources of electricity - hydropower (17.9%) and geothermal energy (69.3%); and external, non-renewable sources of fossil fuels - oil (11.5%) and coal (1.6%) (Statistics Iceland 2013a).

In recent years and decades, the generation of energy through renewable sources has grown rapidly, allowing the country to become the world's single biggest energy producer *per capita* (GAMMA 2013). This development was associated with the build-up of the export-based energy intensive industry (i.e. aluminium production) that consumes about 75% of the country's total energy generation (Samtök Iðnaðarins 2009).

In seeking energy security for Iceland, the predominant concern is with generation capacity and the stability of the internal electric power system, while the means of import and supply in global markets are also important. One of Iceland's inherent vulnerabilities, on account of its isolated geographic position, is its inability to secure the supply of energy through direct physical exchange with other states or regions. Iceland's electric energy system can therefore not be considered as secure as those of most Western European countries. This is just as well given its lack of safeguards to prevent individual interruptions or failures from having impacts upon the quality and delivery of energy to users. This is true regardless of the debate on whether the export of aluminium can be seen as equivalent to an energy export or not (GAMMA 2013; Samtök Iðnaðarins 2009).

While the safety of distribution and delivery in some instances is questionable - as the country is sparsely populated with long and few transmission lines, which are easily damaged

- the biggest threats are posed by natural hazards such as earthquakes and storms. Cases of vandalism against the major energy generating plants, or shocks to the centralized energy management system, could also have drastic consequences for internal energy supply (Ministry for Foreign Affairs 2009; Heildstæð orkustefna fyrir Ísland 2011-2012).

A possible option for reducing the risks inherent in the internal electric energy system lies in the placement of an submarine cable along the seabed between Iceland and Scotland and/or the mainland of Europe (e.g. Norway and the Netherlands) (Arnarson 2012). Although this possibility for Iceland has been discussed extensively for decades, it is not until very recently that it has been seen as potentially economically feasible (Landsvirkjun 2013; Ingimarsson 2012). Factors influencing this change of attitudes are claimed to include the rising electricity prices in foreign markets, technological development in manufacturing and placing submarine cables, and increased demand for renewable energy (Landsvirkjun 2013; Guðnason 2010). However, given that such an investment is undoubtebly very risky and costly, it remains unclear to what extent it is defensible to the public for energy companies to financially partake in such a project (GAMMA 2013, Hagfræðistofnun 2013).

One of the main benefits of placing such a subsea interconnector is that it would assist Iceland in securing emergency supplies of energy, as electricity could be imported as well as exported. By enabling Iceland to import energy to satisfy consumer demand at home, for instance in the event of interruptions or emergency failures, this would at the same time reduce the need for internal energy reserves (Hagfræðistofnun Háskóla Íslands 2013).

On the other hand, its macro-economic effects might increase the ultimate dividend from Iceland's natural resources thanks to the direct export of electricity to foreign markets, which could increase overall stability and efficiency in the production and delivery of energy. This would also help to spread the operational risks of energy sales (GAMMA 2013) and surely strengthen the bargaining position of the publicly owned energy companies against their largest counterparties. The issue is also one of international cooperation for Iceland, as a merger of Iceland's energy market with a European one would also give the associated states (e.g. Scotland, Norway or the Netherlands) access to renewable energy in order to reach the 20% minimum goal (as a proportion of their home consumption) set by the EU, and help them to honor their international obligations in regard to renewable energy consumption (European Commission 2012).

It should, however, not go unnoticed that Icelandic producers - and in particular fisheries and transport – are heavily dependent upon imported oil, accounting for 88% of total domestic oil consumption when combined (National Energy Authority 2011; 2012). A case of import interruption causing insufficient supply of oil during lengthy periods, for whatever reason, could therefore have multiple and severe implications for energy security as well as for overall economic security. For instance, such a scenario would be likely to impose limits on automobile transport and air travel, and fishery vessels would not be able to reach their fishing grounds (Ministry for Foreign Affairs, 2009), while food security in the country could be put at risk (National Energy Authority 2011).

Efforts at energy conversion in the transport sector - with internal renewable sources of energy (partly) substituting for external sources of fossil fuels - are a highly attractive way of strengthening energy security for Iceland. The macro-economic effects, which are presented mainly in the form of foreign currency savings, would surely prove to be positive for the long term (Sigurðsson 2010; Ægisson 2012; Northern Lights Energy 2014b). A number of measures have already been implemented by the government to promote energy transitions and reduce import dependence.[3]

The electrification of vehicles provides a much discussed example where energy conversion could readily take place. It seems to be a very convenient option for Iceland as the internal supply of electricity is sufficient and such a switch would entail only a small fraction of the country's total energy consumption (Ægisson 2012; Einarsdóttir and Kristmundsson 2010). However, despite electric vehicle sales being exempt from excise taxes and electric energy prices being relatively cheap compared to the price of oil, the ownership of electric vehicles is still far from widespread in Iceland (Heildstæð orkustefna fyrir Ísland 2011-2012). This is said to be mainly due to their high price, limited battery capacity and range limits (which however are constantly being improved), as well as the lack of charging stations (Samtök um hreinorkubíla 2014; Northern Lights Energy 2014a).

[3] See: Lög um vörugjald af ökutækjum, eldsneyti o.fl. nr. 156/2010; Lög um umhverfis- og auðlindaskatta nr. 129/2009; Ministry of the Interior 2013; Ministry of Environment 2009;2010; Heildstæð orkustefna fyrir Ísland 2011-2012; Orkuskipti í samgöngum 2011-2012.

The development of alternative bio-fuels such as methane, bio-diesel, ethanol and methanol in addition to hydrogen provides even more options for future energy conversion in transport. Methane and hydrogen in particular are already being used as fuels for public buses and several hundred cars in Iceland (Metan 2014; Orkuskipti í samgöngum 2011-2012). Unfortunately, however, while research and development into the production of methane and the hydrogen has taken place in recent years, their internal production is currently considered quite expensive and capacity is limited (Heildstæð orkustefna fyrir Ísland 2011-2012; Orkuskipti í samgöngum 2011-2012).

Finally, there are said to be great possibilities for moving away from the use of oil for fishing vessels in the coming years and decades. Alternative organic energy carriers such as bio-diesel, BtL (Biomass to liquid) and DME-diesel (demethyleter) are now becoming available at comparable market prices to oil. They are practical in that no comprehensive changes in fishing vessel engines are required for them to be used (Viggósson 2012). Until the time comes when rational economic operators will have fully embraced these developments for economic gain, the most straightforward ways to reduce fossil fuel consumption of the fishing fleet still lie in the adoption of new fishing techniques, steersman training and implementation of energy saving systems, onboard utilization of waste heat, improved gear and ship design (Ministry of Environment 2009; Orkuskipti í samgöngum 2011-2012; Bernóduson 2010).

(III.II.) Ensuring Economic and Financial Viability

(III.II.I.) Fisheries

As for any small island micro-state positioned in the North Atlantic, the ocean and fishery resources have been of fundamental concern for the survival of the Icelandic nation and its citizens since the earliest settlements. Today, the performance of the export-based fish industry remains among the key ingredients in Iceland's effort to ensure economic viability for its citizens. For historical context, it is relevant to start by mentioning the fact that the inhabitants of Iceland did not begin to operate their own decked boats in any important numbers on a year-round basis until the latter half of the 19th century. Thus, in principle, it is not possible to speak of a cohesive independent fishing industry prior to that point in time.

During earlier centuries, "home fishing" had been a 'social' matter for the masses - a seasonal supplement to farming - before the establishment of fishing stations and the

subsequent commercial developments (Kristjánsson 1980). Iceland's national accounts - measuring its performance at different periods within the 20th century - however repeatedly demonstrate a heavy dependence of the economy on the performance of the fishing industry, its export volume and foreign market prices.

It would perhaps not be an over-statement to say that over the course of the century, the fishing industry was the economy's single most central 'wealth producing pillar' (Bjarnason 1996). Fish products were by far the most valued of all export commodities, responsible for a staggering figure of 95% of total exports in the 1960s. Their part in exports consistently measured above 60% in the closing years of the 20th century. The industry's share of national labor meanwhile varied from 20-25% in the earlier half of the century to a low 10% in the latter, while its contribution to GDP varied in accordance with catches and market prices (Árnason and Agnarsson 2003).

In order to gain an in-depth understanding of the environment and conditions that have shaped how the fishing industry operates, it is essential to recognize the impacts of fluctuations in catches and/or prices of commodities in foreign markets. These factors have had a consistent impact upon the living standard of most Icelanders for decades (Eyþórsson 2000). Prior to the introduction of today's comprehensive fisheries management system, it is worth mentioning the ultimately successful attempts to extend the state's exclusive economic zone (EEZ), thereby extending fishing limits. By "nationalization" the Icelandic government, during the years between 1952-1976, extended the EEZ from 3 nautical miles to 200, gaining a 30-fold increase in the fisheries limits (Eyþórsson 2000; Bjarnason 1996). The logical next step in development was to start tackling the ever more obvious challenge of decline in stocks and over-fishing, through the installation of vessel quotas.

The law in relation to fishery management was, however, to be further adjusted in 1990 with the introduction of individual transferable quotas (ITQs) through the Fisheries Management Act. This act transformed fisheries from a strictly regulated industry with units of production embedded within local communities, to a globally oriented free market industry with highly mobile units of production (Eyþórsson 2000). Elements of the system enhanced the value added in processing, which has helped to offset lower total catch volumes in recent years. This was backed by gains through ITQs, automation and technological advancement leading to a more efficient economic operation within the industry (Knútsson et al. 2011).

Unfortunately, however, there are some serious unintended outcomes caused by the ITQ system. Eyþórsson (2000) claims that there has been a substantial concentration of ITQ's within the larger, vertically integrated companies since the introduction of the system. For now, around 200 firms operate within the industry, processing 70% of all catches (Sjávarútvegsteymi Íslandsbanka 2012). Further, there has been a trend towards an ideological shift within the industry. This trend has revolved around the abandonment of the idea that fisheries, and fish processing, should be locally embedded in fisheries communities. As a consequence, investors without relevant fisheries backgrounds and experience can now take their place among the owners of ITQ-holding companies. In fact, some communities have been marginalized as ITQs have been transferred away from them.

On top of these factors, changes in technology and markets have occurred since the system's inception. With the increase in processing at sea and export of fresh fish products, freezing-plants in local communities are no longer a guarantee of local employment and prosperity (Eyþórsson 2000). Increasing investment by firms within the fishing sector has also created new threats to general economic security. Some of the parties possessing ITQs have used them as collateral for borrowing and investing in other sectors than fisheries. In turn, excessive debt accumulation in the industry as a whole has caused increased risk in their operations. Bjarnason (2010) has described this evolution as corresponding precisely to a particular aspect of the so-called 'Dutch flu', whereby the income of natural resources starts to stifle the growth of other export industries, preventing sensible decision-making in regard to production and investment. This development is not only bound to cause problems for the industry itself, but may also pose threats to economic stability and the state's economic system through cross-dependencies.

There is yet another factor, the currency in use – namely the Icelandic Króna (ISK) - that has proved to be of major significance in the performance of the export-based fishing industry and the overall economic well-being of Icelanders. Generally speaking, export-based industries, including fisheries, should benefit from a weak currency exchange rate of the ISK relative to other foreign currencies, allowing them to garner larger shares in the national accounts. This has in fact been evident in recent years as the ISK experienced a sharp depreciation – mainly due to the economic downturn of 2008 and its aftermath – that

contributed to the fishing industry's fine performance and its reports of record profits.[4] In contrast, the typical domestic consumer, seeking imported goods and services at the lowest price available, would benefit from a stronger foreign exchange rate.[5]

Roughly a decade and a half into the 21st century, the figures indicate a diminishing economic importance of the fish industry. This has for instance been a major factor promoting urbanization away from coastal communities in the last several decades. Currently, the industry employs 5% of the overall work force (Statistics Iceland 2012b), while providing around 42% of total exported goods (Statistics Iceland 2012c) and contributing 12% to GDP (Statistics Iceland 2012d; Sjávarútvegsteymi Íslandsbanka 2012). However, applying an economic base analysis, Árnason and Sigfússon (2011; Jóhannesson and Agnarsson 2007) have argued that for Iceland, fisheries are a base industry within the economy providing a higher total contribution to GDP than direct contributions may suggest. Their statistical assessment of the so-called Ocean Cluster suggests that its overall affects - including direct and indirect contributions as well as demand effects - could be around 25%-35% of GDP.

On the other hand, it is difficult to contest the relative decline in numbers engaged in the sector that has been the apparent trend. To a great extent this is due to economic diversification in Iceland's exported goods and services, as new sectors of income and employment have been introduced (Einarsson et al. 2013). Acknowledging this trend does not, however, undermine Árnason's and Sigfússon's thesis that the economy of Iceland relies quite heavily upon the performance of the fish industry. National accounts confirm that the fisheries sector is still one of the main branches or pillars of wealth creation and export performance for Iceland.

(III.II.II.) Energy-Intensive Industry

For many decades, economic policy and discussion of economic aggregates in Iceland were dominated mainly by the fisheries sector. In recent years by contrast, the impacts of energy-intensive industry - with its growing share in exports and service earnings in recent years - have become ever clearer, giving it more weight in macro-economic debates. Helping to

[4] See: Statistics Iceland 2008; 2009a; 2010; 2011a and 2012a.
[5] See: Ólafsson 2013, June 21, *Hagnaður sjávarútvegs er á kostnað heimilanna* (blog at Eyjan.is).

diversify the structure of the economy, the sector contributes to the promotion of economic and financial viability in Iceland.

The energy-intensive industry (i.e. production of aluminium in Iceland's case) is 'energy intensive' in that its produced commodities require great amounts of energy for their manufacture. In order for them to be available at reasonable prices, input costs must be minimized. While energy consumption is the biggest factor in costs, long-term prosperity is in principle best ensured when energy is available for low prices and its supply is reliable (McKinsey & Company 2012).

Energy generation in Iceland is based on renewable energy sources in the form of hydropower and geothermal heat (National Energy Authority 2014). The fact that electricity generated by these means is cheaper than when produced from sources such as coal initially gave Iceland an advantage in the development of a large-scale energy-intensive industry, and thus an opportunity to attract foreign direct investment (Institute of Economic Studies 2009; Þorláksson 2009). Today, 75% of all energy generated within the country is consumed by the industry (Samtök Iðnaðarins 2009).

The emergence of the energy-intensive industry began in 1969 with the start-up of the aluminium smelter in Straumsvík (Rio Tinto Alcan á Íslandi). This was in the same year as the economy experienced a sharp downturn caused by a drop in overall fish catches with the collapse of the herring stock (Valtýsson 2013). In view of the value added created by energy sales for this project and its contribution to GDP, it may be said that the energy-intensive industry's emergence on the economic scene was impressive right from the start. Two other smelters have been put in operation since then, each becoming in succession the biggest producers within the industry; one at Grundartangi (Norðurál Century Aluminium) in 1997 and the other in Reyðarfjörður (Alcoa Fjarðarál) in 2008. They have had a profound influence upon the economy, allowing a dramatic 26-fold increase in the overall production capacity of aluminium in Iceland (Institute of Economic Studies 2009; Samtök iðnaðarins 2009).

The Alcoa Fjarðarál expansion in 2008 and the associated major construction schemes for generating the necessary electric energy were anticipated to bring a direct economic stimulus both in the phase of construction and production. In particular, they were expected to inhibit or reverse the negative aspects of rural development in the eastern part of the country by providing new employment opportunities, also backed by real-estate taxes (Byggðarannsóknarstofnun Íslands 2006; Halldórsdóttir and Rafnsdóttir 2012; Sigurjónsson

2013). Indeed, when construction got under way on the country's largest aluminium smelter in Reyðarfjörður and its largest hydro-energy plant, the Kárahnjúkar dam, in 2003 and onwards, a period of economic improvement was triggered (Central Bank of Iceland 2008).

While some controversies still remain over the actual scope of the positive economic impacts for local inhabitants in the east of Iceland when the new smelter began operation, employment provided by production and related services is now generally thought to have reinforced the area's infrastructure (Byggðarannsóknarstofnun 2006). As a matter of fact, these investment projects are still the most extensive ever to be conducted in Iceland to date, equivalent to more than 30% of GDP in the first year of construction (Central Bank of Iceland 2008). However, it has also been reported that these measures helped to trigger the economic downturn of 2008 in its initial stages, as they entailed a greater macro-economic shock than any other country with a comparable monetary framework has had to tackle. Most significantly, the risks they involved were amplified through the need for imports of capital equipment - affecting the current account deficit - and through the stimulus to general demand which caused inflation (Central Bank of Iceland 2008).

Whatever one makes of these past experiences, other large-scale projects have been on the cards recently that could further enhance the production capacity of the energy-intensive industry in coming years. One is the prospective PCC Bakki silicon metal factory[6] planned to be built near Húsavík. It has now been agreed upon by the government authorities and could start production in 2016 (RÚV 2013). Another is the Century Aluminium project in Helguvík which began preparation for a new smelter (360.000 tons) in 2008.[7]

In general, the notion has been challenged that the establishment of aluminum smelters has exercised a stabilizing effect by placing the economy on a stronger foundation. While it may seem prudent to diversify the export base, this also increases the source of risk for export revenue volatility. It has been argued that since the industry's emergence, global economic cycles have had more of an impact in Iceland than hitherto. This view is based on the fact that the aluminium price index correlates much more closely with industrial

[6] RÚV reports that its production capacity could be around 66.000 tons.
[7] At this point in time, however, it seems rather unlikely that the latter will be fully executed in the near future due to a recent breakdown in the negotiation of energy prices (Ólason 2013).

production in industrial countries than do the prices of fish products (Harðarson 1998; Guðmundsson 2003; Einarsson et.al. 2013; Friðjónsson 2000).

Investigative reporting has also suggested that the positive impacts of the energy-intensive industry on economic and financial viability have been highly overrated in public debate. It is claimed that the revenues received by domestic parties have been unsatisfactory: for example as a result of tax law changes, direct payments (for the years of 2010, 2011 and 2012) seem to have been reduced to a half of what they were previously (Þorláksson 2009). Further, it has been claimed that the governmental authorities have *ceteris paribus* waived their power to increase taxes on the industry in the future. Consequently, a large share of the added value generated is withdrawn from the economy in the form of interest rates (Þorláksson 2009; Sigurjónsson 2014).

Although there does not yet appear to be a wide range of up-to-date and direct research into the macro-economic benefits provided by the foreign-owned energy-intensive industry, some measures of its contribution can be detected in the national accounts. Currently the industry employs a little more the 1% of the overall work force (Statistics Iceland 2012b), while providing 39% of total exported goods (Statistics Iceland 2012c) and contributing around 4% to GDP (Statistics Iceland 2012d). If using theories of economic base (as for fisheries above) and taking account of direct and indirect contributions as well as demand effects, a calculation of the industry's overall effects on the economy would probably rate them somewhat higher than these figures indicate.

(III.II.III.) Tourism

Political discourse and reported research in the past often spotlighted tourism as an industry of huge potential for Iceland (Jóhannesson 2012). Experiencing impressive growth rates and thus gaining greater recognition over a relatively short period of time, the sector has emerged as an integral part of Iceland's economic profile. Now constituting the third 'wealth producing pillar' of the economy - providing a substantial part of foreign currency earnings and underpinning the external balance - tourism serves to strengthen the prospect of economic and financial viability for the Icelandic people (Central Bank of Iceland 2012).

Tourism is among the most diverse and fastest growing industries worldwide. Crudely defined, it incorporates any economic activity set in motion by journeys of individuals away from their usual environments (GEKON 2013). The foundations of tourism as we know it

today can be traced back to the revolution of transportation in the 19th century when costs of travel fell and the mobility of peoples across borders and continents increased dramatically (EGO - European History Online 2010).

Modern-day tourism in Iceland, as elsewhere, has evolved in many ways. If one may speak of an awakening within the tourism sector in Iceland, it surely was in large part due to successful attempts to improve air travel in the years before the millennium and thereafter. Offering direct flights to an increasing number of destinations made it practical for Iceland to attract bigger numbers of international visitors in convenient geographic markets. Expansion in numbers was also later facilitated by other factors including improved border controls (following the September 11 attacks in the US), heightened marketing and advertisement (e.g. the 'inspired by Iceland' project in 2010), and currency depreciation especially from 2008 onwards (PKF 2013).

The growth in numbers of arrivals has been high and relatively stable for a long time, more than doubling to over 700,000 per annum between 2002 and 2012 (Óladóttir 2013). If no drastic changes or emergencies intervene in coming years, the numbers are expected to reach over 1,200,000 by 2023 (Boston Consulting Group 2013). It can be misleading however to look only at the number of arrivals as it does not automatically imply a guarantee of sustainable success nor point to real economic growth. More important is to objectively focus on the monetary value left by visitors within the Icelandic economy, whether it be in the form of direct spending (for instance) or value added (Landsbankinn 2013).

Being a rather complex sector of employment made up of different activities and services - and thus qualitatively different other traditional industries – tourism is not defined as a specific "sector" in national accounts (GEKON 2013; Sigurðardóttir and Young 2011; Landsbankinn 2012). According to some figures, however, the industry now directly accounts for roughly 5% of the overall workforce (Boston Consulting Group 2013), providing around 19-24% of total exported goods and services (Óladóttir 2013) while it contributes around 6% to GDP (Boston Consulting Group 2013; Landsbankinn 2012). Furthermore, it is estimated that tourists paid around ISK 17 billion in 2013 in direct taxes, equal to ISK 120,000 per every household in the country (Boston Consulting Group 2013).

It is evident that the economy has benefitted from the expansion and development of the tourist industry in recent years, not least because of the way this has diversified the export base and helped to close the public output gap resulting from the financial crisis in

2008 (McKinsey and Company 2012). On the other hand, concerns have been raised about whether the growth in tourism is being properly managed and the right steps are being taken to ensure that it is as sustainable, efficient and beneficial as possible. On this matter, a number of reports have already been published, identifying the main challenges that the tourism industry faces as well as proposing some ideas for long-term strategy including: Boston Consulting Group (2013), McKinsey (2012), Landsbanki Íslands (2013), PKF (2013) and GEKON (2013).

The first challenge to mention is that inherent in the conservation of natural attractions and the maintenance of their value and quality, which could be of key importance for attracting tourists and supporting future growth within the sector. This is important not least because visitors do not only seek simple commodities for consumption but desire now more than ever to experience something enriching and meaningful (Richard and Wilson 2006). As a matter of fact, reported research has shown that the biggest factor of attraction for visitors leaving for 'destination Iceland' is that the country provides them with an opportunity to escape city life and get in touch with unspoilt nature (PKF 2013).

Unfortunately however, the growth of tourist numbers in recent years and the failure to diversify their routes within the country has created the risk of over-use causing damage or permanent degradation of soil and landscape at popular sites. Even allowing for these areas often having different tolerances of traffic, this seems to be a real phenomenon. Moreover, if not controlled by some means, there is also the risk of crowding and congestion reducing the special nature of tourists' experience at these sites - which in turn could deter more tourists from visiting in the future (Boston Consulting Group 2013; McKinsey and Company 2012).

The main problem of conservation is that since access to many of the most popular tourist destinations are public areas with free access (Gullfoss, Geysir, Þingvellir etc.), the chances of developing necessary infrastructures are undermined by a lack of incentive for investments. Among the solutions that have been discussed to raise revenue for conservation purposes is to restrict access by introducing entry fees. Alternative ways to do this have been proposed in the form of a flat charge on all visitors (levied on arrival or departure), a multi-site access charge (the "Environment Card"), or single-site access charges (pay as you go) (Boston Consulting Group 2013; McKinsey and Company 2012). With single-site access charges already being implemented at a number sites - receiving mixed reviews - this issue

remains highly controversial. Two simple reasons are that the charge also applies to local Icelanders, and that there is no guarantee that the revenue raised will be put in conservation.

For Iceland, while the growth in the number of overnight stays has managed to keep up with the higher number of visitors, figures for the average visitor's spending have not (Agnarsson and Friðriksson 2012). This means that individual visitors are spending proportionally less every year on average. One reason might be that diminishing returns from tourism is a global phenomenon and little can be done to resist it. Another part of the explanation could be traced to the increased growth in unregistered businesses in a so-called "black market" within the industry (Boston Consulting Group 2013).

Most importantly, however, the evidence suggests that through the industry's appeal to visitors travelling in large groups, the number of tourists from low-value segments that are more self-sufficient, possibly coming from poorer backgrounds, has increased compared to past years. One way that has been proposed for the industry to try to reverse this trend and improve productivity is to refrain from pushing the mass-market appeal and to concentrate on attracting visitors from high-value segments - for instance visitors from the BRIC countries (Boston Consulting Group 2013; McKinsey and Company 2012).

Finally, the factors of seasonality and regional distribution of tourists have had their share of attention as well. With around a half of all visitors coming in over the course of three months in the summertime, they also tend to spend most of their time around Reykjavík and in the South-Western part of the country. This seasonality has limited long-term investment in infrastructure, as peaks and lows in operation are the reality for businesses, while regional distribution has created an over-reliance on infrastructure in one part of the country. Overcoming these issues is one of the main opportunities for future growth within the industry. Attracting more year-round visitors and promoting a balanced growth of tourism around the country is the way forward to a more profitable and value-adding sector (Boston Consulting Group 2013; McKinsey and Company 2012; Landsbanki Íslands 2012).

(III.III.) Characteristic Vulnerabilities

(III.III.I.) Economic Openness

An impressive body of research has been conducted in recent years on the economic vulnerabilities of states, from empirical as well as conceptual perspectives.[8] More often than not, these works start from the presumption that a state's exposure to external economic conditions and susceptibility to exogenous shocks is largely determined by a number of inherent economic features of which economic openness is perhaps the most influential. As the intensity of international trade is the main factor in economic openness, the basic elements of linkage to economic vulnerability are either related to degrees of import dependence or to export concentration.

One consequent finding is that economies that are highly dependent on strategic imports appear to be more vulnerable to the availability and costs of commodities in foreign markets. Conversely, those that are export-dependent will be exposed to shocks due to volatility in export revenue and economic growth. What provides motive to look at the case of Iceland in this respect is the fact that small states tend to rely more upon international trade than other groups of states. This is due not least due to their less advanced regional integration and the need to maintain a significant economic balance through productivity and competitiveness, on account of their small size and limited own resources.

Based on the earlier sections - which have on the one side demonstrated Iceland's heavy dependence upon strategic imports such as food and energy, while on the other side bringing out the substantial concentration and dependence of the economy upon the three discussed 'wealth producing pillars' for export - it will be argued here that the economy of Iceland is highly exposed to international economic conditions and is susceptible to exogenous shocks.

Firstly, in line with the typical economic security challenges that have been identified for small states in general, Iceland's small economic size renders it unable to meet the internal demand for strategic supplies (food and energy) by domestic means, which leads to a heavy dependence upon imported goods (95% for food and 11.5% for oil), leaving the

[8] See: Briguglio 1995; 2003; Briguglio, Cordina, Farrugia and Vella 2009; Farrugia 2004; Kokštaitė 2011; UNDP 2011; Jansen 2004; Easterly and Kraay 2000; Reuveny and Li 2003; Vital 1967; Thorhallsson 2011; Katzenstein 1984; 1985.

economy exposed to interruptions in the availability and affordability of such imports in foreign markets (Thorhallson 2011; Butrico 2013).

Secondly, Icelandic economic managers have no option but to place their faith on maximizing their export earnings in order to finance the high import demands caused by Iceland's limited own resources. The production structure of the Icelandic economy thus remains oriented toward a narrow export base (consisting primarily of fisheries, the energy intensive industry and tourism) despite some progress in diversification over the last decades. This carries with it the disadvantage of having too many eggs in the same basket, intensifying the problems associated with dependence upon international trade (Briguglio 1995).

As empirical evidence suggests that export-led production structures are more exposed to external conditions than those reliant on domestic demand (Foxley 2009), Iceland's narrow range of exports exacerbates its vulnerability to shocks but also the volatility of its export earnings and currency exchange rate. Since export revenue volatility is positively linked with growth volatility, fluctuations in export earnings may also extend to economic growth rates (UNDP 2011). The small-state characteristics, shared by Iceland, of excessive openness and vulnerability in the face of externalities are thus a threat in them selves as the economy operate with its own, national currency.

As for the possible solutions: a number of domestic factors that may improve resilience in face of vulnerability for small states will be mentioned here as a basis for further thoughts.[9] Falling mainly into the two categories of absorption and counteraction, they include: macro-economic stability, fiscal deficit balances, levels of inflation and unemployment, external debt levels, micro-economic market efficiency, good governance, social development and environmental management. While absorption is associated with flexibility, enabling it to recover after being adversely affected by a shock, counteraction relates to its ability for manoeuvre through suitable policies in order to soften the harmful effects of an external shock (Briguglio, Cordina, Farruiga and Vella 2009).

[9] See: Briguglio 1995; 2003; Briguglio, Cordina, Farrugia and Vella 2009; UNDP 2011.

(III.III.II.) Natural Resource Reliance

Iceland is endowed with abundant natural resources that in recent years and decades have been utilized for the purposes of sustaining rising standards of living and securing economic growth, thus strengthening economic security in Iceland. These include the rich fishing grounds within the 200 nautical mile EEZ surrounding the island; hydro- electric and geothermal sources for generating competitively priced energy; and not least, unique and unspoilt nature which provides countless possibilities for developing the tourist industry all around the country. What needs to be given special attention here is that the three 'wealth producing pillars' of the Icelandic economy - generating the lion's share of its total export earnings and together creating the basis for the economy's export-led production structure - are all conditional on the natural resources mentioned above.

Iceland differs widely from most other European small states in this respect. Unlike Iceland, most of them have relatively poor natural resource endowments and benefit mainly from a strong service sector or from their 'transit' locations and industrial or technological specialties, although tourism is a common feature for nearly all of them. This immediately raises an interesting analytical question, as empirical research suggests that one of the surprising features of modern economic growth is that natural-resource-rich economies tend to suffer less attractive growth rates over the long haul than do natural-resource-scarce economies.[10]

Gylfason (2001) argues that there are four main causal links from abundant natural resources to sluggish economic growth that may put a dent in Iceland's prospects of ensuring economic security. First is the 'Dutch disease' whereby endowment with natural resources crowds out other sources of exports by driving up real exchange rates/real wages and increasing exchange rate volatility. Moreover, resource abundance may, under certain conditions, lead to a reduction in total exports or significantly skew the composition of exports away from highly technical or high-value-added industries, manufacturing and service exports that are particularly conducive to growth.

These are symptoms that Iceland has been identified as suffering from in a number of studies, although they fortunately seem to have lessened in recent years. This is mainly due

[10] See: Sachs and Warner 1995; Gylfason, Herbertsson and Zoega 1999; Auty 2001.

to recent developments within the fish industry, its relative diminishing importance and increased stability in the state's economic management.[11] Most importantly, it has been argued that the insecure economic environment created around fisheries has had significant negative implications upon investment and innovation in highly technical or high-value-added industries throughout the last several decades. Furthermore, pay increases and fluctuations in the industry's performance are claimed to have reduced labour productivity and growth in other export sectors (Herbertsson and Zoega 2005).

Second, socially damaging rent-seeking behavior on the part of producers is especially common in natural-resource-rich economies. Rent-seeking in smaller economies can take the form of government offers of tariff protection and nepotism,[12] among other misuses of privilege. Further, it may distort the allocation of resources, inhibit economic growth and reduce either economic efficiency and social equity by breeding corruption in business and government (Gylfason 1995; 2001).

For Iceland, clear examples of distressing rent-seeking behavior have recently been demonstrated, particularly in relation to: a wave of privatization that took place in the 1990's: utilization of energy resources; fisheries quota management; and in finance (Hauksson 2011; 177-180; Halldórsson and Júlíusson 2013, 284-292). Moreover, judging from the 2013 report of Gallup International, this is an issue that needs to be given serious attention by scholars since the report finds that 67% of all domestic respondents to their survey perceive government corruption to be pervasive in the country (Ray and Sonnenschein 2013).[13]

Third, abundant natural resources can distract and divert government authorities from implementing good and growth-driving economic management, such as free trade policies, efforts for bureaucratic efficiency, and institutional quality. It may also lead people to suffer from over-confidence as natural wealth imbues them with a false sense of security whereby the merits of innovative and value-added wealth creation tend to be neglected in favor of extracting wealth from natural resources, be it from soil or the sea (Gylfason 2001).

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[11] See: Sachs and Warner 2001; Herbertsson, Skúladóttir, Zoega 2000; Auty 2001; Bjarnason 2010; Gylfason, Herbertsson and Zoega 1999.

[12] (Oxford Dictionaries 2014) Meaning: The practice among those with power or influence of favouring relatives or friends, especially by giving them jobs (originated in the mid 17th century from *nepote* 'nephew' with reference to privileges bestowed on the nephews of popes)

[13] Gallup International's 2013 cross-country study measured government corruption viewed as a pervasive problem in 129 countries, asking the question whether "corruption [is] widespread throughout government in [country], or not?".

One can quite easily come to the conclusion that this is the case for Iceland, especially when giving attention to the fact that its three biggest export sectors are conditional on natural resources while also seeing that its instable environment for investment and innovation in other export sectors is left disquieted. Further, it may be argued that the insufficient dividends received from energy extraction in addition to the decision to build a massive power station during a period of economic expansion, which in its initial stages helped to trigger the economic downturn of 2008, illustrates Iceland's false sense of security quite well (Central Bank of Iceland 2008).

Fourth, Gylfason finds that resource-rich-economies may fail to recognize the importance of human resource development through expenditure and adequate devotion to education and social matters. Natural wealth may even blind them to the need for educating their children. Thus is it may perhaps not be a coincidence that there appears to be a negative relationship between school enrolment at all levels and resource abundance, as measured by the share of the labor force engaged in primary production across countries (Gylfason 2001).

In Iceland's case, by comparison, the proportion of its national labor force holding secondary education degree is significantly lower than the OECD average (OECD 2010).[14] Moreover, results of the 2013 PISA research - measuring the performances of students approaching the end of compulsory education - indicate that Iceland has fallen significantly behind the other Nordic states (Halldórsson, Ólafsson and Björnsson 2013).[15]

(III.III.III.) Absence of Institutional Shelter

As demonstrated in the foregoing section, on account of their small economic size and domestic market, small states - including Iceland - are more dependent upon international trade than other groups of states. For meeting the requirements for strategic imports, they need to be more economically open and rely on a narrow range of exports for competitiveness - which in turn renders them vulnerable to international economic downturns and structural change (Thorhallsson 2012).

[14] OECD reports this is the case for the age group of 25-34.

[15] Since the year 2000, PISA has tested fifteen-year-old students from randomly selected schools worldwide in the key subjects: reading, mathematics and science.

In order to prevent the possible harmful consequences of fluctuations generated by international constraints, Katzenstein has argued that small states may form a domestic buffer through such means as: developing speedy and successful corporatist decision-making systems, where domestic representatives of labor and capital owners are brought to the decision table; or a capacity to socialize risk by incorporating a comprehensive welfare system and active labor market policies. When using such means, small states have been seen as small, smart and salient entities that may be able to recover more quickly from economic downturns than other groups of states due to their small-sized bureaucracies and ability to adapt to new circumstances (1984; 1985)

To this point, it is beyond doubt that domestic arrangements are significant in determining how a state manages its exposure to international constraints. However, it has been argued on the contrary that while Katzenstein's model of flexible adaptation may offer important insights about compensating for economic vulnerability, it should not be viewed as a decisive element. Supposedly, the model overlooks the important aspect of whether a state can withstand external stress and whether it presents itself as a viable entity in the new globalized neo-liberal international economy (Thorhallsson 2010; 2011).

It may be that this was most clearly demonstrated by the complete banking crash that occurred in 2008 in Iceland, the state that was reported as the first sovereign failure of the crisis which left it stranded on its own without a proper ally, without the economic shelter of the EU, and without any immediate substantial economic emergency assistance. In the end, Iceland's only real alternative of grasping credit was to ask for assistance from the IMF on a comprehensive stabilization program in the midst of the crisis (Thorhallsson 2011).

As indicated by the recently experienced financial crisis from 2008 onwards, small states are now more than ever hostage to the fortunes of external economic conditions which cannot be sufficiently managed solely by democratic corporatism (Bailes and Thorhallsson 2012; Kirby and Thorhallsson 2012; Thorhallsson 2010; 2011; 2012). On this issue, the original small states literature - which focuses in more general terms on their vulnerability and limited capabilities - regularly concludes that small states need to find themselves a protecting power or alliances in order to ensure their viability, not only in the economic but also in the strategic and political sense. Indeed, as Thorhallsson (2011; 2012) has argued, small states have always sought economic and political protection from their larger counterparties in order to compensate for their structural weaknesses, such as low institutional capacity.

From the latter half of the 20th century, most European small states have sought economic or political shelter through institutions rather than through bilateral agreements. In this perspective, Iceland does not conform to the same pattern as most others who have opted for full participation in the process of European integration - though it certainly has been an active partner through EFTA (1979), the European Economic Area (1994), and Schengen system (1996) (Einarsson 2011).

Iceland has followed the general practice of Nordic nations by becoming a member of most international organizations established in the post Second World War period. Receiving some direct economic gains from membership, not least from the IMF and World Bank, it has also had close bilateral military, economic and trade ties with the United States, Iceland's main provider of political and economic security from the 1960s up until the year 2006 when the military basing arrangement was peacefully cancelled. Right from the start, the US government provided an economic shelter in that it gave Iceland considerable aid, beneficial loans, monetary donations, favourable trade terms with US companies. The US also guaranteed Iceland's exports of fish, financed infrastructure projects, contributed to the country's GDP and provided essential currency earnings (Thorhallsson and Vignisson 2004).

In relation to Iceland's response to the process of European integration, Thorhallsson and Vignisson (2004) have suggested that this special relationship between Iceland and the US in terms of security and economic and trade relations has been particularly influential. It offered an alternative philosophy as well as a practical alternative for Iceland. Logically enough, the ending of the basing relationship and the US's inability to provide Iceland with economic shelter in 2008 may be seen as key variables explaining why Iceland in 2009 decided to seek fuller participation in the European integration by applying for EU membership.

A number of other factors have been adduced to explain Iceland's reluctance thus far in the European Integration process, including: the economic interests of leading sectors, the skeptical political elite, special ideas about the Icelandic nationality, effects of the 'Cod Wars', and geographical isolation (Einarsson 2006; Thorhallsson 2004). It is, however, interesting to consider whether it might not just as well be claimed that reliance upon natural resources is causally linked to Iceland's wariness of European integration, making the country even more vulnerable to external shocks than it would have been otherwise.

A hypothesis of this nature could lend support in Ingebritsen's (1998) sectoral approach to European integration, which suggests that rationalist economic interests dictate state policies and relationships. Here the key observation would be that Iceland's leading sectors are all conditional upon exploiting natural resources. On this basis it could also be suggested, in political terms, that those who have taken the most excessive rents from resource exploitation (both historically and currently), are the most firmly opposed to EU entry. At first, this seems problematic since Ingebritsen goes only as far as claiming that domestic politics and responses to European integration in Iceland have revolved largely around the perceived interests of the fish industry. Expressly, she does not seem to regard the interests of other sectors as significant despite the diversification of exports in Iceland. In support of her view, research has shown that fishing industry companies have developed close ties to the political elite and business entities in Iceland.

Further, various studies conclude that the industry's opposition to the EU Common Fisheries Policy has always been at the heart of the Icelandic debate on possible EU membership. As an example, the Federation of Icelandic Fishing Vessel Owners has openly opposed EU entry on grounds linked with protectionism (specifically: protection of resources), portraying control over the EEZ as crucial for the nation's destiny as an independent state (Einarsson 2006).

Looking at the issue more broadly, it can nonetheless be seen how the Euro-skeptical political elite has utililized, with various methods, the strong emphasis on protecting Iceland's formal sovereignty. The campaign to safeguard the prosperity-generating capabilities of the nation's natural, resource-dependent "wealth-producing pillars" may thus in a way be seen as being closely related to the political discourse grounded in the nation's political identity and historical narrative of the settlement period. Examples of this may found in the application of rhetoric along the lines of "the EU will steal our resources", linked with an appeal to myths or nationalistic sentiments. This may support the more general hypothesis, as it helps to explain the feeling that Iceland should remain in control and be free to preserve balance in relation to its own resources (Einarsson 2009; 2011; Thorhallsson 2013a).

(III.III.I.I.) Seeking EU-Membership

Perhaps it can be argued more generally that in recent years the Icelandic nation as a whole has come to realize that the constraints posed by its limited own human resources and small domestic market might be compensated for with membership in the EU as the dominant regional organization. This may not only provide a larger market with economic benefits, but also important economic and administrative shelter that could cushion the effects of external shocks (Thorhallsson 2012; 2013). By early 2013, out of 33 substantive chapters for negotiation with the EU, 26 had been opened and 11 closed – the fastest progress being where Iceland was already bound by their EEA obligations (Avery, Bailes and Thorhallsson 2012; Bailes and Thorhallsson 2013b). However, the trickiest chapters on fisheries and agriculture, which we have seen above are pivotal issues for Iceland's specialized economy, had yet to be opened. As fate would have it, the EU application then came to a sudden halt with the inauguration of a new right-leaning administration in May 2013.

Iceland's current relationship with the EU is based on association without membership. Therefore, one could say that Iceland is neither fully inside nor completely outside the EU. In principle, this is a difficult arrangement with inherent structural tensions and economic complexities. One of the relationship's most controversial aspects is, however, much more of a democratic nature than purely economic. It concerns the democratic deficit resulting from Iceland's being bound to adopt rules and policies of the EU without being a member or having a say in decision-making processes. This may very well have dampened political debate in Iceland, as it makes it harder to hold the governments accountable for their European policies - as has also been the case for neighboring Norway, according to a extensive report 900-page report covering all aspects of Norway's relations with the EU (EEA Review Committee 2012, 5-10; Thorhallsson 2002).

Further, in the context of economic security, It is argued that the EEA agreement has not adjusted well to the rapid developments within the EU, with new treaties and three rounds of enlargement taking place since the EEA first came into force. The significance of the agreement is seen by some as dwindling in importance, as they claim it no longer sustains a satisfactory partnership between EFTA and the EU. These developments have also been linked by some analysts with the story of Iceland's economic crash, as the country was being shifted onto the sidelines of European collaboration, leaving calls unanswered for deeper integration with the EU (Einarsson 2011).

Clearly, the EU could not have prevented small-state Iceland from experiencing some difficulties as a result of the economic crisis of 2008, nor spared it the consequences of general turbulence in the liberal international economy - although some might argue that having adopted the Euro might have had such an effect. As a full member of the EU, the main benefit for Iceland would have come from its political community and institutional framework. The country would not have simply been bullied and left abandoned as was the case in 2008 and onwards; rather, the EU would have been compelled to come to its rescue and provide economic shelter as it did in some other national cases (Thorhallsson 2012; Kirby and Thorhallsson 2012).

As Bailes, Rickli and Thorhallsson point out (2014, 26-46), the sheltering value of the EU for small states does not only rest on the EU's successful record in functional security provisions, but also its principle of members' basic equality which offers small states a new context for asserting their interests against larger neighbors, as well as in global policy making. The constraints of formal joint policies are also successful in restraining more powerful states from 'throwing their weight around'. Moreover, the EU provides small states with a new multi-dimensional approach to economic security, incorporating responses to some of the newer functional threats in fields such as energy, environment, health and cyber-security which in turn are important for economic stability and sustainability. On the policy side, small states are enabled to use non-traditional means to exert influence through their actions inside the formal institutions of the EU, giving them a kind of 'escape from smallness' that no other security construct has ever been able to provide (Bailes and Thorhallsson 2012).

(IV.) Conclusion

This thesis has sought to explore how far Iceland's main economic challenges can be identified and understood within a small state framework and how the state's handling of economic security and choices of possible solutions may be explained in such a context. We have found that the Icelandic case resembles quite closely the fundamental small state economic vulnerabilities: reliance upon international trade including heavy dependence on imports, concentration of exports, and the associated exposure to shocks. Some possibilities for reducing these vulnerabilities have also been reviewed.

As for the challenge of securing strategic imports, it has been demonstrated - in a human security context and at the macro-level – how Iceland's small economic size renders it unable to meet the internal demand for strategic supplies by domestic means, which leads to a heavy dependence upon imported goods, leaving the economy exposed to interruptions in the availability and affordability of such imports in foreign markets.

Although food production remains an integral part of the Icelandic economy, heavy reliance upon imported food (or food with import-based ingredients) can thus have major implications in times of crisis. This is a major issue for Iceland since if imports were disrupted in any way, the adequacy of food production and supply would be under threat, placing Iceland at a high risk of food insecurity. Perhaps surprisingly, we have found that the government authorities have done little to secure an internal food supply or to develop official polices aimed at ensuring adequate reserve stocks. Yet, there is dire need for constructive dialogue on the issue of food supply in Iceland.

The very same logic applies to energy security as well. Having noted that generation of renewable energy has allowed Iceland to become the world's single largest energy producer *per capita,* it also becomes clear that the leading sectors are thus far heavily dependent upon fossil fuels. Hence, Iceland remains vulnerable in terms of energy security while any import interruptions causing insufficient supply of oil during lengthy periods could have major economic implications. Furthermore, we have found that the safety of the internal electric energy system is inadequate in some respects, mainly due to its inability to secure the supply of energy through direct physical exchange with other states.

For ensuring economic and financial viability, Icelandic economic managers have no option but to place their faith on maximizing their export earnings in order to finance the high import demands caused by Iceland's limited own resources. The production structure of the Icelandic economy remains oriented toward a narrow export base which consists primarily of of fisheries, the energy intensive industry and tourism, carrying with it the disadvantages of having too many eggs in the same basket, intensifying the problems associated with dependence upon international trade.

In this context, our study first focused on the fish export industry which has for long been regarded as the cornerstone of the economy. Given that the industry's performance has always been very prone to global price fluctuations, these have also had immediate impacts on the economic well-being of the citizens, for instance through currency devaluations. This fact supports the observation that fisheries have historically been the main preoccupation of the political elite in ensuring economic and financial viability. Today, however - although the fisheries sector still remains among the economy's key ingredients - it is only fair to note that its relative importance (also in societal terms) has diminished with the economic diversification of exports in recent decades.

The economy's relatively recently emerged pillar, the energy-intensive industry, was then analysed, including its massive impacts upon the economy and fiscal management in Iceland. Indeed, its emergence was the driver behind a dramatic increase in aluminum production and associated projects in the last several decades. In consequence, the national economic structure and its inherent cycles are no longer solely determined by fisheries as the new industry has contributed a sizeable share of total goods exports in recent years, according to national accounts. However, considering that the energy intensive industry's emergence may also have brought increased risk for export revenue volatility, the main challenge for economic security could lie in the need for government to claim increased, but reasonable, dividends from its energy sales.

In a similar way, considerable attention has been devoted here to tourism, which has already come to the fore as the third major 'value generating branch' of the economy. Claiming an ever-growing share in total exports of goods and services, the number of visitors has more than doubled since the beginning of the 21st century. Estimates indicate that even greater development within tourism and related services can be expected in the coming years. In turn, some of the concerns relating to growth management in tourism have been

explored, especially the challenges of nature conservation, diminishing financial returns, regional distribution and seasonality. We have found that addressing these challenges is key for future growth within the industry, as well as for strengthening general economic security.

At the same time, Iceland's economic challenges have been found to differ widely from other European small states in a two-fold respect. The Icelandic economy's three major value-generating sectors all operate on the basis of finite natural resources, relying on the utilisation of primary products. This marks a distinction from most European small states which tend to have relatively poor natural resource endowments and benefit mainly from a strong service sector, 'transit' locations and 'niche' industrial or technological capacities, although tourism is a common feature for most of them.

Since empirical research suggests that natural-resource-rich economies tend to suffer less attractive growth rates over the long haul than natural-resource-scarce economies, our analysis has indicated how the potential negative implications of imprudent resource reliance may put a dent in Iceland's prospects of ensuring economic security. The risks in this context include: the "dutch disease", rent-seeking behavior, a false sense of security, and inadequate devotion to education.

The need for Iceland to seek economic shelter has also been highlighted as for constructing economic security this issue is especially important. Belonging to an institutional structure with long-term economic commitments and common rules is now considered more important than ever for preventing the possible harmful consequences of fluctuations generated by international constraints in today's context of open international trade and interdependence. In this regard we have argued that Iceland does not conform to the same pattern as any other European small state (aside from Norway and Switzerland), given that these others have adopted or are seeking full participation in the process of European integration, though it certainly has been a partner in a number of agreements concerning European co-operation throughout the decades.

Exploring and elaborating on a number of variables previously applied to explain Iceland's reluctance thus far to seek institutional shelter, this thesis has offered a perspective on how Iceland's reliance upon its natural resources and production of primary products has vastly contributed to the country's vulnerability and exposure to exogenous shocks by preventing any attempt at EU entry up to the year 2009.

Having observed that those who have taken the most excessive rents from resource exploitation, both historically and currently, are the most firmly opposed to EU entry, it has been argued that Iceland's Euro-skeptical political elite has turned to its account, in various ways, the strong emphasis on protecting the state's formal sovereignty. Concerns about safeguarding the prosperity-generating capabilities of the nation's natural, resource-dependent "wealth-producing pillars" may thus be seen as being powerfully (and mutually) influenced by a discourse grounded in the nation's political identity and by the political power of constituencies profiting from resource exploitation. This contributes to the feeling that Iceland should remain in control and be free to set its own balance in managing its own resources, as opposed to building on the trajectories of international cooperation.

Given that economic security is clearly dependent upon other sectors of security and vice versa, any modern definition of economic security is thus in itself dependent upon a set of fixed precepts and values. In which instance this thesis has explicated the growing interest in economic security analysis by placing it in a post-Cold War context which concentrates on the interlinkages between politico-ideological competition and economic competition. For our case study, it has become clear how Iceland's plight and policy in pursuing certain political interpretations of economic security may be placing overall economic at greater risk than hitherto. What seems to be the real phenomenon here - which could serve as a basis for further study - are in particular the cases when political agendas and ideology penetrate the comprehensive economic security policy: as this can result in the making of ill-adapted 'zero sum' type of judgments which may also come at the expense of Iceland's general security.

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Abbreviations

CSS: Critical Security Studies

EEA: European Economic Area

EEZ: Exclusive Economic Zone

EFTA: Europan Free Trade Association

EU : European Union

FEP-power: Foreign Economic Policy Power

GDP: Gross Domestic Product

IMF: International Monetary Fund

IR: International Relations

ISK: Icelandic Króna

ITQ: Individual Transferrable Quota

NATO: North Atlantic Treaty Organization

SS: Security Studies

UN: United Nations

UNDP: United Nations Development Programme