



Gas security in Central and Eastern Europe – A comparison between Czech Republic and Hungary's approach to gas security

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Abstract

The primary purpose of this study is to determine why two countries coping with a position of gas import dependence, Czech Republic and Hungary, have different gas security strategies. This thesis utilises Mill's method of difference, together with the securitisation theory and rational choice theory, to explore this conundrum. A qualitative research method is adopted, where face-to-face elite interviews were carried out in Prague and Budapest with Czech and Hungarian energy experts. The thesis aims to fill a gap in the literature by looking at transit and supply diversification, companies operating in the countries, and the gas storages capacities in Czech Republic and Hungary, through an identity-based perception of Russia. Moreover, the importance of gas price regulations as well as the impact domestic factors have on gas contracts will be analysed. The research showed that Czech Republic and Hungary have both securitised several factors in gas security, primarily because of the identity-perception of Russia as either a threat or pragmatic business partner. It also showed the extensive influence both Russia and the EU have over the two countries regarding their gas security. The two countries have adopted different approaches to the role of the state. The Hungarian government takes a large role in the gas sector, gaining ownership of several gas companies, in contrasts to the Czech government who adopts the EU regulations, allowing the market to decide. The thesis thus brings together insights from securitisation and rational choice theory to understand how similar gas import dependent countries deal with their gas security.

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List of abbreviations

CEE	Central and Eastern Europe(an)
DSO	Distribution System Operator
EC	European Commission
ERO	Energy Regulator Office
EU	European Union
IEA	International Energy Agency
LNG	Liquified Natural Gas
MND	Moravske naftove doly Gas Storage a.s
MOL	Hungarian energy company
MVM	Hungarian energy company
NATO	North Atlantic Treaty Organization
OMV	Austrian energy company
REKK	Regional Centre for Energy Policy Research
RWE	German energy company
TOP	Take-or-Pay
TPES	Total primary energy supply
TSO	Transmission System Operation
V4	Visegrad Four (Visegrad Group)

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Introduction

The strategic role of natural gas has long coloured international relations. As a result, natural gas security has frequently remained a top concern for most governments, even as the definition expanded. Since natural gas has historically been supplied through land-based pipelines, gas-importing countries have often had to rely on a limited number of suppliers. Because of their geographical position and historical past, many Central and Eastern European countries have been heavily dependent on Russia for their natural gas import. This has allowed Russia to use natural gas as a foreign policy tool to assert influence over these countries. Despite facing a similar position of being gas-import dependent, Czech Republic and Hungary have adopted different gas security strategies to deal with the issue.

Why similar countries develop different strategies to deal with import dependence remains understudied. While Russia's approach to the countries under former Soviet influence, as well as their use of natural resources as a foreign policy tool have been researched, the topic has lacked a comparative study of the response of two countries dependent on Russian import. Moreover, the influence of the EU on these countries gas security strategies is not sufficiently researched. This thesis aims to fill that gap. To achieve this, the thesis will utilise a combination of securitisation and rational choice theory together with Mill's method of difference. It will draw on a range of literature on the topic, as well as elite interviews, to answer the research question.

The thesis will begin with an explanation of the theoretical framework chosen for this study. It will then turn to the methodological section and the use of case studies as a research method. An extensive literature review will then be carried out, where the different concept and definition of gas security will be discussed, as well as previous research done regarding Czech Republic and Hungary's approach to gas security. Focus will then turn to the empirical study where the factors of supply and transit diversification, gas companies operating in the countries, and their gas storage capacities, will be examined and analysed. The thesis will then look at domestic factors and the importance of gas price regulations as a political tool. It will then conclude the findings and. Lastly, a reflection over the research project will be carried out and some insights regarding areas of future research will be provided.

1. Research problem and question

The gas crisis of 2009 between Ukraine and the Russian Federation (hereinafter Russia) affected all the Central and Eastern European (CEE) countries. The cut-off of gas to Ukraine from Russia led to several ruptures in supply for CEE countries and highlighted the vulnerability of relying on a single natural gas supplier (Westphal, 2009). As the biggest supplier to the countries in the European Union (EU), Russia plays a crucial role for countries energy and gas security. Russia's position in the gas market, together with their willingness to use their natural resources as a foreign policy tool and their aggressive behaviour in Ukraine and Crimea, has led the EU to emphasize the risks from predominant dependence on Russian gas (Grigas, 2017). The EU has repeatedly encouraged its member states to diversify their gas suppliers and transit routes in order to increase their gas security (EC, 2014). Despite several of the CEE countries face similar threats to their gas security, they have adopted different strategies to deal with the issue (Kovács et al, 2011).

Czech Republic and Hungary are selected as two case studies for this thesis in order to compare and contrast the approach to gas security of two similar states. Czech Republic and Hungary are two CEE countries which share a similar history. Both countries were under the influence of the Soviet Union and are now part of the EU, the North Atlantic Treaty Organization (NATO), and the Visegrad group (V4). They are in close proximity to one another geographically and both are landlocked, which gives them similar possibilities to deal with gas security. Russia is a big supplier of gas to both countries, but while the Czech Republic has diversified their supplier and transit routes, Hungary has not done it to the same extent, and the lack of diversification from Hungary appears to be intentional. In times of gas crisis, as in 2006 and 2009, Hungary is more vulnerable than the Czech Republic due to their dependency on Russia as a supplier. Two similar countries but with a different approach to gas security.

The reason for Czech Republic and Hungary's divergent strategies are of interest to enrich our understanding and knowledge of smaller countries' security strategies and what affect these. Both countries have different relationship dynamics with the EU and Russia. Therefore, it is essential to examine the impact of these foreign relations on domestic policy and gas security. While the importance of energy security

has been studied extensively, gas security has gained less research interest, particularly from the viewpoint of why smaller countries that resemble each other may adopt such different strategies. The research will adopt the securitisation theory as well as the rational choice theory to answer the research questions. This thesis will firstly contribute to the expanding field of energy and gas security literature, and secondly to the research of domestic responses to comparable international conditions.

Built around two case studies, the Czech Republic and Hungary, this thesis seeks to address the issue of why similar countries adopt different gas security strategies.

Following this, the central research question of this thesis is:

- Why have Czech Republic and Hungary adopted different gas security strategies in dealing with their gas import dependence?

The aim of the thesis is three-fold:

1. To explore the extent to which there is a divergence between the Czech Republic and Hungary's gas security strategies.
2. To analyse why Czech Republic and Hungary have different approaches to gas security.
3. To assess how the relations of the Czech Republic and Hungary with the EU and Russia affect their gas security strategies

2. Theoretical framework

This dissertation will utilise two different theories: Securitisation theory and Rational Choice theory. The reason for opting for two theories instead of one is that securitisation theory or rational choice theory alone would not be able to answer the research questions in a satisfactory way. The thesis will consider multiple factors, some of which are highly relevant to securitisation theory, but certain factors and decisions can be better explained by rational choice theory. By using securitisation theory, the thesis will be able to cover factors such as diversification of supply and transit routes, and gas storage capacity. By utilising rational choice theory, the rationale behind gas price regulations and the contracts negotiation will be covered. This will allow the thesis to go deeper with the observation and analysis. While rational choice theory assumes an objective best outcome that actors will seek, securitisation assumes that the best outcome is constructed socially through the securitisation of certain factors (Özcan, 2013). Opting for a positivist and a constructivist theory may seem like a contractionary approach, but the research project will assume that different actors create different interests, and these interests are formed through a process of securitisation, which are then positioned and pursued rationally. These interests will touch on more politically domestic factors, something the rational choice theory is better suited to explore.

2.1 Securitisation Theory

The securitisation theory was founded by the so-called Copenhagen School of Security Studies, after attempting a new view on security, a view that did not focus solely on military and political aspect (Buzan, Weaver and de Wilde, 1998). It follows the concept of widening security in the sense that security does not only refer to a certain object (the state) and to a certain kind of security threat (military), but instead looks at what elevates a topic to become a security issue. As the authors put it “*Security is about survival; it is when an issue, presented as posing an existential threat to a designated referent object, justifies the use of extraordinary measures to handle them*” (Buzan, Weaver and de Wilde, 1998, p. 21). Basically, any issue can be considered a security threat if the topic is elevated to that level. The most important aspect is what the actors of securitisation, Czech Republic and Hungary in this case, constitute as a threat, which then can explain the actions taken to counter them.

2.1.1 Defining “Extraordinary Measures”

However, the literature differs on what characterises “extraordinary measures”, with some equating it with military measures (Nyman, 2013). Narrowing it down to military measures however, would exclude factors that might be interesting in the securitisation of gas. This thesis will utilise Hansen’s (2012) thoughts on actors, like the countries’ governments, which exercise sovereignty in the specified area and thereby decides its exception from regular policymaking. “Extraordinary measures” are therefore all deviations from the intersubjectively accepted political norm which would not be possible without securitising the issue. “Extraordinary” measures are also connected with the speed of which certain policies are implemented. As discussed by Janeliunas and Tumkevic (2013), specific measures to solve energy issues that could be called “extraordinary” indicate that the process of securitisation has a clear purpose – to result in specific changes, something that would be unachievable within a certain time without securitising the issue. Moreover, the cost of the measures taken as well as the scale of them must be considered when deciding whether “extraordinary measures” have been taken.

2.1.2 Defining “existential threats”

The definition of “existential threats” may also differ depending on the scope and topic of the research project. It may be defined in the constitutional principle as a threat to state sovereignty, as a threat that might undo the integration process in the EU, or perhaps as a threat to the dominating position of a certain religion in a country (Buzan, Weaver, and de Wilde, 1998). In this thesis, “existential threats” are the factors or actions that threaten the gas security, as defined in the literature review, of Czech Republic and Hungary. This further relates to Guzzini’s (2011) view which emphasises that particular historical events or previous perceived threats can mobilise shift in political discourse and thus facilitate securitisation processes in foreign policy. This is particularly relevant for the purpose of the thesis because both Czech Republic and Hungary’s historical connection with Russia has been marked with gas disruptions, such as those in 2006 and 2009, as well as takeovers attempt by Russian companies of major infrastructures.

2.1.3 Usage of securitisation in energy security

Securitisation theory has been applied in the area of energy security, but it remains fairly limited (Özcan, 2013). While some argue that energy has been securitised since the oil crisis of 1973, it has largely existed in the political debates, and has not been fully securitised (Nyman, 2013). Furthermore, Yergin (2006) claims that the difference between 'speaking security' in energy and securitizing it remains untouched. McGowan (2011) continues this line of thought by arguing that just because there are more energy security talks in a country does not necessarily mean it implies securitisation, since neither reference to existential threat nor calls for extraordinary measures are convincingly made. However, looking at country's security strategies or energy security policy papers, it is notable that Czech Republic and Hungary both emphasise energy security, and especially gas security, as vital to the state's functioning. This is reflected in what they believe constitutes "gas security" and how to best achieve it. By using securitisation theory in this sense, the thesis will explore how the two countries differ from one another in how they securitise different factors of gas security. It will also help in understanding *why* certain gas issues become security matters, and the motives behind it. Another aspect to consider is how the EU is framing gas security. This might differ considerably from Czech Republic and Hungary's perception, but since they are both members of the EU, it is reasonable to suggest that the EU's securitisation affects them. Casier (2011) study of how state's identity and self-perception in EU-Russia relation affect the securitisation of certain issues is highly relevant for this thesis and will be utilised. Casier looks at material factors such as energy prices and connects them with the increased securitisation of energy matters, while also looking at the effect the EU has had on the framing of security issues. These factors are important when comparing Czech Republic and Hungary since they have different approaches to these issues.

2.2 Rational Choice Theory

While securitisation theory will be utilised to analyse several factors such as diversification, gas storages and identity, the thesis will also make use of rational choice theory. The utilisation of an additional theory is required because the thesis will not only look at how issues are securitised, but it will also analyse domestic factors

which can be attributed to economic rationales or self-interests of certain actors. Securitisation theory cannot fully and comprehensively answer these aspects. Rational choice theory is a relevant theory since it focuses on the principles of government policy making. It assumes that behaviour of individuals and states is motivated by self-interest or utility maximization (Petracca, 1991). It is inherently result-oriented and the theory assumes that individual actors foresee the overall cost-benefit orientation to the best of their abilities. The theory is useful in this case since one of the purposes of the thesis is to examine the influence of Russia and the EU over Czech Republic and Hungary, and how they interact with each other. By utilising rational choice theory, the thesis can show the discrepancy between the stated aim of concerted action by the EU as a whole, and the national interests pursued by the individual member states, such as Czech Republic or Hungary, when dealing with Russia and gas security. Bozhilova and Hashimoto (2010) identify rational choice as a good theory to look at the bilateral relations between the EU and Russia, and explain individual actions of member states and their divergence from collective EU policy making. They especially look at countries' economic rational in energy security policy making, which results from the diverse positions of the EU member states toward Russia. The theory, however, struggles to explain why certain decisions taken are not followed up by appropriate actions. By combining the two theories, the thesis will gain a better and more detailed understanding of why Czech Republic and Hungary's gas security strategies differs from one another and what factors influence them.

3. Methodology

3.1 Case Studies

This project will be revolving around two case studies: Czech Republic and Hungary. These two countries are selected due to their historical similarities, and their comparable geographical position as landlocked countries in Central Europe, but also because of their different approaches to gas security. By using case studies, the thesis can capture many variables and identify how a complex set of factors come together to produce a certain outcome (Hancock, 1998). The two cases are the gas security strategies of Czech Republic and Hungary, and the phenomenon the thesis aims to illustrate is the divergence of gas security strategies of the two countries despite them having a similar background. The purpose of the thesis is to shed light on the factors that determine what kind of gas security strategy a country chooses to follow when coping with a position of gas import dependence. Czech Republic and Hungary's strategies will be looked at from the transitional period following the collapse of the Soviet Union until present day through a contemporary lens. The study will reveal if and how the strategies have changed over time and analyse what factors that have been important in the formation of the strategies. The EU and Russia are already deemed to have influence over the strategies due to the countries being member states of the EU and import most of their gas from Russia, but the thesis will explore the level and the manner of influence they have. Mill's method of difference will be applied to analyse the different gas security strategies of Czech Republic and Hungary (Lijphart, 2014). The thesis aims to understand why their domestic and external policies differ and what factors contribute to how they prioritise gas security differently when coping with similar positions of gas import dependence, which makes Mill's method a suitable choice.

The thesis will look at the policies and decisions adopted by Czech Republic and Hungary to achieve gas security. Gas security is achieved by 1) the availability of gas, 2) the adequacy of capacity to meet demand, and 3) affordability, and it is operationalised as transit diversification, supplier diversification, gas storage capabilities, and gas companies operating in Czech Republic and Hungary. The case studies are descriptive, as they provide an explanation of the strategies used to deal

with the gas security issues. The thesis is also analytical, in the sense that it seeks to explain *how* and *why* Czech Republic and Hungary have different gas security strategies. The aim of the case studies is to conclude something general from what is studied, and therefore one must consider whether the cases and factors studied are representative of the phenomena that is supposed to be explained. This paper assumes that Czech Republic and Hungary's different relation and identity to the EU and Russia plays an important role in the shaping for their respective gas security strategies, as well as the level of infrastructure available and planned.

Case studies allow for a high level of conceptual validity and to identify the indicators that best represent theoretical concepts (George and Bennet, 2005). However, using case studies can also hinder representativeness, where the specific factors and outcomes of the cases researched may not be applicable generally. It is also linked to the problem of being biased and subjective (Hamel, 1993). Several factors have been identified that is believed to contribute to the research question, but other researchers may find different factors to be more important. To overcome such biases, a thorough literature review needs to be carried out to identify factors that are most relevant to the cases. Although, complete objectivity is near impossible to achieve and must be taken into consideration.

3.2 Data

Secondary and primary resources will be used for the purposes of the research. The secondary data will be extracted from existing academic literature, governmental and research institutions, and private companies. When assessing the literature, attention will be paid to the definition and conceptualisation of energy security and gas security in particular. The literature review section will focus on critically evaluating how the previous research has explored Czech Republic and Hungary's approach to gas security, their gas strategies, and their foreign policies toward the EU and Russia. Four different factors will be particularly emphasised: supply diversification, transit diversification, companies operating in the countries, and gas storages. In addition, data from state institutions and private companies will be evaluated to establish the levels of gas import and of diversification, the characteristics and capacity of their gas

storages, as well as contract lengths. This will include institutions such as the Regional Centre for Energy Policy Research (REKK) and the International Energy Agency (IEA). Moreover, the state gas and energy policy and strategy papers will be analysed to provide information how their official strategies develop, and what factors they consider gas security threats.

3.3 Interviews

A qualitative approach will be applied when gathering primary data. The qualitative nature of the research allows insights into the research problem and an understanding of the underlying reasons for the different approaches by Czech Republic and Hungary. Face-to-face elite interviews were carried out both in Hungary and Czech Republic. The interviews took place in Prague and Budapest in the middle of April 2017. Four elite interviews were conducted with Czech experts, while six were done with Hungarian experts. The interviews were recorded on audiotape with the consent of the interviewee, who also have to give approval for use of quotes attributed to them. The interviews are meant to provide information in addition to the data collected. Here it is essential to provide a definition of “elites”. While there are various definitions of the term “elite” in the literature, this thesis will use McDowell (1998) definition of elites as highly skilled and professionally competent. The people interviewed were either academics with research interest in the field of energy and/or gas security, private actors in gas companies operating in Czech Republic or Hungary, or governmental officials who are associated with, or currently working with, the energy sector in the two countries. People involved in elite interviews can help interpret certain relevant documents, factors involved in important decisions, and help explain outcomes of events (Richards, 1996). While the interviews are complementary to the data collection and document analysis, it can provide relevant information on, for example, the motives and reasons to diversify gas transit and supplier.

Elite interviews are subject to various problematic issues. The reliability of the interviewee can be questioned due to failure in memory, adjustment of their interpretation because they do not want to be seen in a bad light, especially people working in government or in gas companies, or there may be the issue of a power

relation: an interviewee concerned with his/her opinion may want to dominate the interview, which can lead to the interviewer not being able to control the direction of the interview (Richards, 1996). It is therefore of importance that the interviewer carefully considers his approach and questions asked to be able to conduct an interview relevant for the research.

Another problem that may arise with conducting interviews with people from different countries is the language barrier. However, the Czech and Hungarian experts operate on a high level and their level of English is not deemed to cause any problems.

3.3.1 Selection of interviewees and questions

The elites were selected on the grounds of their experience in the field of energy and gas security in the respective countries. Both public and private sectors specialist were interviewed for the research. The interviews consisted of open questions but some follow-up questions were asked in each of the interviews. The questions aimed at obtaining answers on the following areas: 1) country-specific strategic priorities of gas security, 2) perception of the relative influence of Russia and the EU, 3) the effect of EU energy liberalisation, 4) the importance of certain companies and/or actors in each state, 5) the reasons for divergent levels of diversification, and 6) identity- related perception of closeness with Russia (perceived as friend, enemy, partner). Four of the participants requested anonymity. The rest of the interviewees will be included and cited both in the main body of the text and in footnotes.

4. Literature Review

Since the thesis aims to understand the different gas security strategies of Czech Republic and Hungary, the literature review will firstly focus on the conceptualisation and definition of energy security, and how it has changed throughout the years. Secondly, the literature review will look at Czech Republic and Hungary's approach to gas security, but also how their relationship with Russia and the EU has affected certain aspects of their security. It will also consider how the two countries view and deal with their main supplier - Russia. Moreover, why similar countries have adopted different gas security strategies and what impact domestic factors, such as infrastructure and elites, have, will be reviewed.

4.1 Definitions of energy security

The concept of energy security, and a deeper academic interest in it, started after the oil crisis of 1973-1974 (Vernon, 1976). Joseph Nye (1981) framed energy as a security problem but admitted the difficulty in constructing a strategy and thinking of energy as a security problem. The literature mainly understood energy security in terms of oil security since it was deemed to be the most important energy resource in geostrategic politics (Vernon, 1976). Energy security has traditionally been studied in relation to the capacity of states to sustain and develop their economies, to maintain their armies in the event of aggression, and therefore understood in strictly realist terms (Sen, 1984, and Walt, 1991). It was not until the end of the Cold War, with the realignment of foreign policy and economic transformation of many countries underway, that natural gas became prominent in the discussion (Kalicki and Goldwyn, 2011). The security of natural gas gained even wider research interest after the gas crisis of 2006 and 2009 in Ukraine, when the issue of diversification of supply and transit routes became a real concern due to Russia cutting of the supply to many central and eastern European countries (Grigas, 2017). Today, while maintaining the realist notion in many cases, energy security envelope factors that can be put under the category of human security. These include for example environmental and societal factors (Kruyt et al. 2009, Alhajji, 2008).

There are various definitions of the term “energy security” in the literature, ranging from affordable prices to environmental damages, showing the difficulties in finding a common definition to use. The IEA defines energy security as the uninterrupted availability of energy sources at an affordable price, which emphasises the market supply side and the political stability of exporting countries (IEA, 2017). Several authors (Scheepers et al. 2007, Wright, 2005, Lieb-Dóczy, Börner, and MacKeeron, 2003) have similar view as the IEA, where the most important factor to consider is the low risks of interruption of energy supply. The notion is that the shortage of energy is a sign of insecurity but, whether the price volatility is a sign of insecurity is disputed (Winzer 2011). The IEA introduces a subjective severity filter to identify whether the levels of continuity are secure or insecure. From IEA’s definition, the energy security is only impaired if the disruption of energy leads to unaffordable prices for energy. This view is supported by various researchers who believe the prices of energy are one of the most significant aspects of energy security (Mabro, 2008, Vicini et al. 2005, Andrews, 2005).

Löschel, Moslener, and Rübhelke (2009, p. 2) argue that “*energy security exists if the energy sector does not cause major welfare-reducing frictions in the economy at national and global levels*”. They emphasise, however, that economics alone cannot deal with the problem of conceptualising energy security, since politically motivated changes of preferences, such as accepting own harm if this generates more harm to someone else, are important. The literature seldom touches upon the subject of how countries consciously lower their energy security by participating in political rows to be free from energy dependence, such as the recent case with Ukraine and Russia, which leads to energy insecurity in the short term but with the goal of energy security in the long term. Shaffer (2013), however, recognises that disruption of natural gas supply can be initiated by transit and consumer states, and not only supplier states. She further argues that gas projects that involves transit states, as is the case with Hungary and Czech Republic, are inherently less stable than those projects which are direct between supplier and consumer states. Other authors introduce different filter such as the sureness of events that can be foreseeable (Spanjer, 2007). The use of subjective filters is problematic. It makes the concept of security imprecise and it makes it more difficult to measure. While one country may find a certain continuity and price

level to be at an acceptable level, another country might think the opposite. This makes it harder to operationalise.

4.1.1 Widening of the concept

Although widening the concept of energy security may bring important factors into consideration, it can also make it difficult to measure. After the introduction of Buzan's (1998) widening concept of security some authors include the environmental factor in energy and gas security, arguing that long-term energy security must consider the environmental aspect (Intharak et al., 2007, Krut et al. 2009). While this is mostly discussed in terms of oil in energy security, the role of gas is frequent in the debate as well. Alhajji (2008) widens the concept even more by referring to economic, social, environmental, foreign policy technical and security dimensions of security. By adding these indicators to gas security, the concept is significantly broadened. It also changes the theoretical debate of energy security, from a state-centric one (a realist perspective) to an issue of global significance, and a more human security perspective, since environmental issues cannot be tackled by individual states alone, but through cooperation and agreements globally. This makes it more inclusive but simultaneously it makes energy security more difficult to measure and could prove problematic when comparing two countries such as Czech Republic and Hungary. Krut et al. (2009) tries to quantify these concepts but they only confirm the great diversity of approaches and understandings to energy security. It could be interesting to see a thesis adopting a broader concept of gas security, encompassing environment and societal factors, but this thesis will use a narrower concept. The scope of the thesis does not allow for too many factors to be considered and will instead focus on fewer, but still relevant factors, to answer the research questions.

There are numerous critics to the widening of the energy security concept. Ciuta (2010, p.139) criticises the broadening definition of energy security by saying *"...the totality of energy may make security total, but not before it makes it banal, a redundant empty signifier"*. More significantly, authors tended to change and widen the term "energy security" to fit their empirical observation instead of reasons for the variation in how countries deal with energy security (Sovacool, 2011). While Ciuta raises a good point, the concept of energy security must have the ability to widen, since the circumstances change over time. With the EU regulations and the unbundling and

liberalisation of energy companies in the EU, being implemented, it is neither banal nor redundant to widen the scope of energy security. Although, when broadening the definition of energy security, it is a balancing act not to overdo it and encompass too many factors. However, one must still be allowed to expand from the “original” definition of energy security, something this thesis aims to do.

4.1.2 Diversification and infrastructure

While their core definition of energy security may differ, most scholars argue that the diversification of supply and the diversification of transit routes are paramount when it comes to energy security (Binhack and Tichý, 2012, Sovacool and Mukherjee, 2011, Chester, 2009, Spanjer, 2007, Deese and Miller, 1981). Whether it is to sustain and develop their economies to maintain their armies, as in realist terms, focus on environment and societal factors as in human security, or to emphasise the role of the market, as in more liberal terms, the diversification issue remains an important factor. This is particularly useful when researching countries that have been the subject of another country’s determination to use energy as a foreign policy tool, such as the Czech Republic and Hungary have been with Russia. The issue of diversification is brought up by the EU, Czech Republic, and Hungary in their energy security documents and strategies, emphasising its importance.

All the energy definitions include the concept of avoiding risks which affect the supply of energy. Some add different filters to distinguish between secure and insecure changes of energy supply, but few look at the infrastructural level in more detail. Nosko (2013), while looking at the energy security of Czech Republic and Hungary through the lens of diversification and market prices, fail to recognise the growing importance of infrastructure such as gas storage in the concept of energy security. While gas storage has not always been a crucial factor, it grew in importance after the gas crisis in Ukraine 2006 and 2009 and many Central and Eastern European countries have developed gas storages which can supply them in case of delivery disruptions. Binhack and Tichý (2012) recognises that gas storages strengthens energy security of countries, but they fail to go deeper with their observation. What is missing in Binhack and Tichý’s discussion about gas storage is how and why they are built as well as who are the companies constructing the storages and operating them, something that can be useful when considering the EU and Russia’s influence.

4.1.3 Gas security

While energy security encompasses oil, natural gas, nuclear power, wind power, and electricity, there are characteristics between the different sorts of energy, which are important to consider. As Chester (2009) says, there are significant differences between energy markets, such as transport infrastructure, storage difficulties, and regional nature of markets. While the concept of energy security includes gas security, gas security must be seen as separate from energy security as a whole due to the many differences. Transit diversification and supplier diversification are factors existing in most energy sectors, but the infrastructural dynamics are different. Countries are involved in the construction of pipelines and storages, and in the making of long-term contracts, which is different from electricity and coal for example where the delivery process and storage is of another kind (Shaffer, 2009). The long-term contracts mean that the prices of gas imports remain at a relatively constant level, in comparison to oil or electricity where its subject to faster changes. The importance of the companies operating the pipelines and supplying the gas is also an insufficiently researched area. Nosko (2013) provides a good research on the topic, emphasising the changes from pre-EU ascension for Czech Republic and Hungary until 2011 in the unbundling and liberalisation of the gas companies. He also looks at the Russian influence in the private companies operating within the countries, and Sovacool and Mukherjee (2011) mentions it as a possible indicator for energy security but only in passing. Butler (2011) similarly look at companies operating in Hungary and what effect they have on the political level. Whether the governments have a stake in the companies operating in the countries or if they are independent of the country they are supplying to, and what effect this might have, is an area that demands more research.

Brenda Shaffer (2012, p. 2) provides a clear concept of gas security, identifying the differences between gas and other energy resources, saying *“In addition, most of the works related to energy security lump analysis of oil and natural gas together, despite the fundamental differences in supply dynamics that produce completely different situations for politics to come into play”*. She points to the price of natural gas and how it is not set by the global market, as is the case with oil, but more often with long-term contracts where states are major players together with companies. Moreover, she also emphasises the role of the state by saying that it usually takes

between 10 and 15 years for investments in natural gas to pay off, which makes investors keen to ensure that companies and states involved will uphold contracts for the life of the project. Thus, host and transit state governments backs international supply projects with government-to-government agreements, something other energy resources not always require. States must also approve installations and route, and often provide security of the infrastructure, and they also play a regulatory role. Her concept of gas security emphasises the role of the states and the relation between supplier and consumer, while considering infrastructure, private companies, and how gas can be used as a foreign policy tool.

Shaffer's concept of gas security goes well together with Chester's (2009) definition of gas security. Chester argues that gas security is achieved by 1) the availability of gas, 2) the adequacy of capacity to meet demand, 3) affordability, and 4) sustainability. She also argues the impossibility of an absolute or end-state solution to gas security, since the probability, likelihood and consequences of different risks and threats to supply will vary over time. While one might not be able to achieve full gas security, it is still possible to distinguish whether a country has more gas security than another country. This thesis will use Chester's definition of gas security, but will omit her fourth point, sustainability, since the environmental factor is considered too broad for this thesis. This study will therefore utilise a narrower definition of gas security than some of the authors mentioned, emphasising the sensitivity of gas import dependence. It will look at four different factors to see how much gas security the countries have, which goes well together with Chester's definition: a) transit diversification, b) supplier diversification, c) gas storage capacity, d) companies operating in the country. This combination will allow the study to encompass important contributing factors to gas security while keeping it measurable, allowing the research to clearly show the potential differences of Czech Republic and Hungary's gas security. However, it is necessary to mention that despite selecting these factors, other elements could potentially have been included, such as sustainability and societal factors. By looking at for example diversification and companies operating in the countries, it will be easier to see the influence of both the EU and Russia. If the essay would have looked at environmental factors it could see the influence of the EU but the potential importance of Russia would not have been visible to the same extent.

4.2 Czech Republic and Hungary approach to gas security

The academic discussion regarding *why* similar countries adopt different gas security strategies and *how* they do it is insufficiently researched. Shaffer (2015) examines natural gas security of supply of states that rely on Russia as single supplier, for all or most of their natural gas imports. She discusses how countries, instead of reducing the Russian gas supply, establishes energy infrastructure such as gas storage capacity, stringent emergency response policies and enacting legislation that barred foreign ownership of energy infrastructure based on national security considerations. While these countries do not necessarily want to depend on Russia for their gas supply, they fail to cooperate on a larger scale which would allow them to diversify, instead acting unilaterally to create domestic infrastructure and policies to tackle the potential threats. This shows the discrepancy between the stated aim of concerted action by the EU or a regional cooperation like the V4, and the national interests pursued by the individual member states.

4.2.1 Organisations and institutions

The literature tends to disagree when it comes to the importance of regional organisations for gas security. Tarnawski (2015) has a similar line of thought as Shaffer (2015), where he argues that the countries in the Visegrad Group (Hungary, Slovakia, Poland, and Czech Republic) will only have common interests when their gas systems are integrated, by either means of pipelines or interconnectors. While Shaffer (2015, p. 201) acknowledges the importance of interconnectors in Hungary's gas security, she says that "*The lack of cooperation in establishing natural gas infrastructure in northern Eastern Europe lowers expectations that there will be regional cooperation in southern Eastern Europe...*", revealing a more pessimistic side than Tarnawski. Shaffer also brings it to a more institutional level by arguing that countries in eastern Europe are all members of the EU and NATO, and therefore share a common strategic orientation, something that Tarnawski does not. Tarnawski, however, argues that the countries are subject to EU regulations on the organisation of the internal market or climate change. So, while Tarnawski does not comment on the common strategic orientation, he is recognising the influence the EU has over the member states. For Shaffer, it does not matter whether a country is part of institutions such as the EU and NATO, because

they will primarily focus on themselves and do what they can do protect their gas security, despite potential problems for the long-term gas security. This debate mirrors the broader concerns in international relations theory about why and when states cooperate in terms of establishing joint markets and expanding trade. While Tarnawski seems to favour liberal institutionalism, where institutions such as NATO can increase cooperation between states, Shaffer tend to lean more towards neo-realism, where states maximise their own security instead of cooperating with other states due to lack of sovereign authority which can enforce binding agreements (Jervis, 1999).

Muir (2002) is also recognising the influence of the EU in the energy sector. In comparison to Tarnawski (2015) who says that countries are subject to EU regulations, she claims that Czech Republic is seeking to integrate with the EU in a more eager manner, saying "*The Czech government is focusing on harmonizing Czech energy sector standards with those in the EU*" (Muir, 2002, p. 27). It should be noted that this was when Czech Republic was applying to become a member of the EU and one could therefore argue that they adjusted to the EU policies to get admitted. Muir strengthens this argument when she says that Hungary's energy policy at that time was oriented toward achieving EU accession, where they for example sold their shares in the Hungarian oil and gas company MOL to abide with the EU regulations. As Marušiak (2015) says, countries have more room to manoeuvre when they have become members of the EU, and can therefore change their energy security strategies more independently than when applying for membership.

Despite being members of the same union, Czech Republic and Hungary may seek other possibilities to achieve gas security, which involves going against the strategies of the EU, as a whole. Marušiak (2015) argues that even though Hungary is a member of the EU, they will act pragmatically and at times seek closer relations with Russia if it would benefit their gas security. Example of this is when Hungary's Prime Minister, Viktor Orban, was one of very few European leaders to hold bilateral talks with Vladimir Putin in 2015, emphasising the issue of how committed Hungary is to regional cooperation vis-à-vis state interests. One could argue that this is a question of identity, drawing from the constructivist theoretical standpoint, where Hungary and Orban identify themselves more with Russia than with the EU. The reason for the meeting was the planned bilateral talks with Russia about a gas contract between the two countries. Even though the contract did not get signed at that time, it showed that

Hungary was willing to act in a way that defied the EU's strategy of diversifying from Russia, showing the influence Russia has in matters of gas security. Pačes (2009) argues that Czech Republic main priorities for a reliable energy supply includes an integration with the pan-European energy system, and that cooperation with the EU and NATO to build new gas pipelines is pivotal. This shows a difference in Czech Republic and Hungary's view of the EU and Russia, where Czech Republic favours a more integrated EU to counter a Russian threat, and Hungary more willing to deal with Russia directly to bolster their gas security.

4.2.2 Russian influence

While Hungary, in the literature, seems more inclined to work with Russia than Czech Republic does, they are still wary of Russian influence. Butler (2011) discusses the role of private companies in the energy market and how they influence the strategies of countries. He specifically focuses on the Hungarian gas and oil company MOL and how they have staved off Russian interest in their company by having the Hungarian government framing the company as being in the national security interest. While this path of action may have gone against the directives of the EU, Hungary still did it, emphasising that Hungary is not afraid to challenge EU law when their security is threatened, underlining Marušiak's (2015) previous point of countries acting pragmatically. This characterises Hungary's position, where as previously mentioned they are conducting bilateral talks with Russia regarding energy security while at the same time being wary of letting Russia too close. Butler (2011) frames it in a more geopolitical manner, where the Hungarian government will not allow foreign states to directly influence their gas security, putting it in a more neorealist way.

The literature reveals different approaches by Czech Republic and Hungary when it comes to the diversification effort. While Tarnawski (2015) says that Czech Republic diversifies from Russia because they see Russia as a threat, Deák (2006) argues that Hungary aims at reconciling their diversification efforts and improve their relations with Russia. The attempt to diversify, from Hungary's point of view, is not seen because of a Russian threat, but as a consequence of Hungary's energy vulnerabilities. Hungary lacks the infrastructure to diversify to the same level as Czech Republic, so while Hungary is attempting to decrease their energy supply vulnerability, they acknowledge that Russian gas is going to remain crucial to Hungary's gas

security, no matter if they manage to increase their diversification. Hungary therefore adopts a balancing role, where they have interests in both the EU and Russia's energy options and they avoid any breakdown in these relations (Deák, 2006). Deák argues on the same line as Marušiak (2015) and Butler (2011), where Hungary is a pragmatic player, realising the influence that Russia has, and will continue to have, and therefore wants to remain on friendly terms with Russia, and especially the main gas supplier, Gazprom. Thus, according to Deak, it can be said that Hungary's already existing gas infrastructure (or lack of) dictates their gas security strategy. The difference from Czech Republic is clear. Czech Republic has access to other exporters of gas, such as Norway and Germany, through other pipelines and are therefore not as vulnerable as Hungary regarding Russia, which allows them to pursue other gas security strategies. However, why Hungary's infrastructure remains underfunded is not made clear. While the geographical position is important when it comes to transit diversification, the different priorities by the policy makers must still be considered, which is lacking in the discussion.

4.2.3 Czech Republic and Hungary's approach toward Russia

While it is important to see how Russia influence Czech Republic and Hungary, it is also necessary to see how the two countries approach Russia. Leonard and Popescu (2007) argue that Russia is working to create a situation where the EU needs Russia more than Russia needs the EU, particularly in the energy sector. This is done by undermining the core principles of the EU by picking off individual EU states and signing long-term energy contract with them. Leonard and Popescu categorises the different EU countries and their approach to Russia. Czech Republic is considered to be a "Frosty Pragmatist" who focuses on business interests but are not afraid to speak out against Russian behaviour on human rights and other issues. Hungary is in the "Friendly Pragmatist" category where they put business interests above political interests and seek to maintain a close relationship with Russia. The two countries are split between two approaches. One consider Russia as a partner and wants to involve Russia in as many institutions as possible and encourages Russian investment in the energy sector, while the other consider Russia as a threat where Russia's expansionism must be contained through a policy of soft containment. This approach

is closely related to the already discussed view of Marušiak (2015) and Deák (2006). Leonard and Popescu argues that Hungary's energy partnership with Russia has helped undermined the possibility of a common EU approach to energy security. This has taken the shape of support for the possible extension of the Blue Stream gas pipeline in favour of the, now abandoned, EU-preferred Nabucco gas pipeline. Czech Republic's sometimes frosty relationship with Russia has led to several diplomatic incidents, not the least when Czech Republic decided to host a US missile defence shield, something Russia was vehemently against. Their energy relationship is therefore not based on pragmatic economic deals alone, but elevated to the geopolitical arena, which has consequences on their gas security.

4.2.4 Domestic factors

While many authors believe that external aspects dictate Czech Republic and Hungary's gas security, others look at domestic factors. Nosko (2013) discusses the divergences through the lens of domestic political parties and their agenda, popular perception of threat which can be connected to energy supply, while also looking at the elites and their personal links with the perceived source of threat. He specifically looks at Czech Republic's and Hungary's relation with Russia, as Russia is deemed as the threat in his paper, and how it influences the two country's strategies. His findings conclude that elite's relation toward Russia is of great significance, emphasising private economic interests in the energy sector. This is echoed by Hegedus (2016) who says that political parties in Hungary reap the benefits of economic cooperation with Russia, while providing Moscow with small political services. He also says that the parties' pro-Russian stance may not be shared by their voters, indicating that it is a project explicitly led by the elites.

Moreover, Nosko (2013) argues that the presence and concentration of an energy intensive export-oriented sector provides structural demands for influencing the energy policy of the discussed country. This influences the choices of policy makers regarding energy policy priorities, but also how the industrial restructuring within a country takes place. His arguments rely heavily on the importance of the individual elites and the policy makers and how they shape the energy policy. Nosko (2013) and Hegedus (2016) are clearly favouring the elite theory in the field of international relations. While this can reveal the differences between two countries such as Czech

Republic and Hungary, Nosko uses it to show the influence Russia has over the countries, while neglecting the possible influence of the EU over these countries and the policies of the EU in energy matters. While Nosko mentions that EU affected Czech Republic and Hungary's energy security strategies during their accession to the Union, echoing Muir (2002), he does little to reflect upon EU's role and influence over their energy security strategies after their acceptance into EU. Also, Nosko wrote his paper before the introduction of EU's Framework Strategy for Energy Union and before the recent crisis in Ukraine. He also refers to the South Stream and the Nabucco pipeline as relevant to his findings, two gas projects which now have been scrapped and focus shifted to other potential pipelines, which perhaps could undermine his conclusions.

The academic literature seems to agree on several points regarding why and how similar countries adopt different gas strategies. The theoretical standpoint differs but most of the authors emphasise how countries act pragmatically and in their self-interest, whether that self-interest is closer relations with the supplier country or further integration with the EU. Moreover, while both Czech Republic and Hungary seem wary of Russia, they adopt different approaches in which Czech Republic seeks to distance themselves while Hungary favours a closer relationship. Although, the literature has different explanations for Hungary's approach to Russia, with focus being on infrastructure, elite corruption, political gains, and identity, whereas Czech Republic distance themselves because of the fear of Russia and the potential threat they make to the energy security of Czech Republic. The theoretical standpoints vary from neo-realism, to liberal institutionalism, constructivism, and elite theories. A common theme is the relationship between the countries and EU and Russia, which is something that will be further explored in this thesis with the use of securitisation theory as well as rational choice theory.

5. Empirical study

After conducting a thorough literature review, this thesis will now turn to the empirical study of the gas security strategies of Czech Republic and Hungary. In the literature review certain factors were emphasised as particularly important for gas security. These were 1) supply diversification, 2) transit diversification, 3) companies operating in the country, and 4) gas storages. The thesis will address these factors in turn and make a comparison between the two countries' approaches to these matters. It will be doing so by looking at identity. By taking into consideration the identity-based perception of Russia and the EU, the thesis will show how this have affected Czech Republic and Hungary's gas security. This will be done through the lens of securitisation theory, which will reveal how and why the two countries have prioritised different aspects of gas security, and what they have done to deal with the issues.

The thesis will then address the regulation of gas prices and gas contracts in Czech Republic and Hungary. Certain actors in the two countries have created different interests. The interests are formed through the process of securitisation, and the thesis will therefore utilise the rational choice theory when analysing these interests. This will help explain why the two countries differs in how they regulate gas prices and how they approach gas contracts with foreign entities. This will also reveal how the two countries are viewing the EU and its role in domestic affairs, something that has consequences for their gas security.

5.1 Identity-based perception of Russia

The thesis will start by looking at the role of identity-based perception and how Czech Republic and Hungary perceive Russia, and how this translate to decisions taken, or not taken, when it comes to gas security. Identity has been recognised by several authors as an important factor when it comes to relationships between countries and foreign policy, which is relevant for this study (Kucharczyk and Meseznikov 2015, Casier, 2011, Stinger, 2008). As has been determined in the previous chapter, the thesis will look at supply and transit diversification, companies operating in the countries, and gas storages to determine the gas security of the countries. By looking at identity the thesis will see the influence Russia and the EU have on the gas security

strategies of Czech Republic and Hungary, which may have implications on how they securitise different aspects regarding gas security.

In Czech Republic, Russia has traditionally been viewed as either a business partner or a hostile threat where security concerns trump economic benefits (Kratochvil and Rihackova, 2015). The dominance of one or the other narrative have alternated depending on what party is the strongest in the government. However, ever since Russia's war with Georgia in 2008, the view of Russia as a threat has been dominant. The people who adopt this view also tend to believe that a coherent EU strategy with all member states is the best way to deal with Russia (Kratochvil and Rihackova, 2015). Moreover, the number of people who perceive Russia as a threat is increasing. In 2014, the number of people who viewed Russia as a potential national security threat was 66%, a figure almost doubled from the previous year (Kratocvhill and Rihackova, 2015). So, while there are still many people in the political circle who view Russia in a pragmatic way, in which they are a business partner foremost, Russia's recent aggressive actions have led to more people viewing them as the main threat to the Czech national security.

In comparison, Hungary's government is seen as having a friendlier stance, where the country's dependence on Russia energy supplies translates into a pragmatic foreign policy towards Russia based on economic interests, irrespective of the party in government (Gyori, Hunyadi, Juhasz and Kreko, 2015). Their approach to Russia has led to Hungary at times going against the common strategy of the EU, with the justification of self-interest (Nosko, 2013). However, one must be careful however not to label the government or the people of Hungary as pro-Russian as it would indicate a stance in which there are not enough evidence for. Nonetheless, Hungary is deemed to have a friendlier approach towards Russia than the Czech Republic.

5.1.1 Supply and transit diversification

Hungary and Czech Republic were part of the so-called "Eastern Bloc" for decades which have had profound consequences for their domestic and international policies. Their economies were adjusted toward the Soviet Union and they were heavily

dependent on gas imports from the Brotherhood pipeline (Daborowski, 2015). The infrastructure was therefore adapted to the presence of gas import from the East, and a diversification of transit routes after the collapse of the Soviet Union would consequently need to be mainly financed by respective country. While Czech Republic has diversified their gas imports to a large extent, Hungary remains heavily dependent on Russia for theirs. This vulnerability is noted in the Hungarian energy strategy (2012, p. 108) where it says *“Therefore, with a view to the security of... natural gas supply of the EU, both supply sources and transportation routes will need to be diversified in the medium term. This is all the more true of Hungary, one of the most vulnerable countries of the continent as far as traditional energy resources are concerned, being particularly dependent on Russian energy exports.”*. A possible reason for the difference in Czech Republic and Hungary’s approach to gas security is their relationship with Russia. While both countries are part of EU and NATO, their identity and perception of Russia is different. Czech Republic seems to favour a more integrated Europe, which is compatible with their identity, and while Hungary may not be pro-Russian per se, the country adopts a friendlier approach to Russia, which this thesis believes is part of their identity.

Throughout the last 25 years, Hungary has had a more positive view of Russia than Czech Republic. While in Czech Republic the percentage of the population who view Russia as a negative influence or a threat from 1991 to 2004 has been between 40% and 55, it has been between 5% and 30% in Hungary (Nesko, 2013). In recent times, 66% believe that Russia constitutes a national security threat to Czech Republic, while 41% in Hungary believe that Russia will try to regain its previous influence over Hungary. Deak (2006) further argues that the governments of Hungary since 2002 have been supportive of Russia and tried to pursue a reconciliatory policy. Since Hungary did not deem Russia as a major threat it led to them not securitising energy the first 20 years after the independence (Nosko, 2013). The same cannot be said for Czech Republic. One of the first goals of the independent Czech Republic was to diversify their import portfolio and seek alternatives to Russia for importing gas (Jirusek, 2013). The issue was elevated to the highest level and it was of utmost importance for their energy and gas security. Czech Republic managed to conclude a contract with Norway in 1997 for importing gas through Germany, a contract which now supplies up to 35% of their total gas import (Jirusek, 2013). Although, the Norwegian

gas is swapped for Russian gas in Germany. The important part, however, is that Norwegian gas can be imported to Czech Republic during crisis, as in 2009. The Czech decision to diversify away from Russia was heavily criticised by the Russian government who tried to persuade Czech Republic not to diversify by offering low price and stability for their gas (Jirusek, 2013).

However, Czech politicians saw the diversification project as another way of loosening the country's tie to the former Soviet Union which could then lead to membership of EU and NATO. In my interview with Martin Jirusek¹, he said that the diversification efforts took place in 1990s when the general anti-Russian sentiment was very strong in Czech Republic. This was enough to justify the diversification efforts even though they were expensive and would bring more expensive hydrocarbons from the west compared to Russian supplies. Czech Republic effectively securitised the issue and prioritised the supply over gas prices, arguing that a continuous dependence on Russia would threaten their gas security. Hungary did diversify their transit route through the HAG pipeline with Austria in 1996, which provided them with a 4.5bcm annually in capacity (Osicka, Plenta, and Zapletalova, 2015). The issue remained however, since the gas through the HAG pipeline was Russian gas. In contrast to Czech Republic, Hungary did not securitise the diversification of supply after their independence, but instead focused on other aspects in their domestic policies. The dependence on Russian gas was not elevated to a security issue, and the issue of energy security was seldom present in the political discourse in the 1990s (Nesko, 2013). However, it should be noted that the ruling party of Hungary at the time, Fidesz, presided over many of the NATO and EU negotiations which preceded the ascension to these organisations in 1999 and 2004, indicating a pro-Western stance. Similarly, Weiss (2011) and Jirusek (2013) argue that Czech Republic adopted an EU identity in which they sought to promote issues such as human rights and solidarity with their neighbours, and that the political discourse in the late 1990s and early 2000s was characterised by the orientation towards the West and integration in EU and NATO.

Czech Republic has managed to diversify their supply and transit routes further. In addition to the previously mentioned Norwegian gas, smaller companies in

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Czech Republic buy gas from the German spot market. The traders buy gas under short term contracts from supplier such as Wingas, Wintershall, and Lumius, which can be up to 30% cheaper than the gas provided from Gazprom (Hungarian government, 2012). However, Russia remains the main supplier of gas, providing up to 60% of the annual consumption (Jirusek, 2013). The diversification of supply is repeatedly emphasised in Czech Republic's state energy policy paper and one of the primary objectives of the government is to *"Support greater diversification of gas supplies from various sources...which will boost the security and reliability of supplies, including in cases of emergency or in trade or political crisis"* (Czech government, 2014a, p. 67). To link the energy security to national security, one can look at the national security strategy of Czech Republic, where the diversification efforts are highlighted: *"In order to ensure its energy...security, the Czech Republic: provides for the maximum possible diversification of source territories and transit infrastructure...and ensures the protection of infrastructure..."* (Czech government, 2015, p. 20-21). Their diversification efforts in Germany are relatively new, which is a product of their increased connection with the western markets through various interconnectors.

The diversification of supply and transit route gained new prominence after the crisis in Ukraine in 2006 and 2009 where many CEE countries were left without Russian gas for weeks. As emphasised by Stringer (2008), the countries under the former influence of the Soviet Union saw Russia using its dominant position for political purposes. This can also be seen in 2008 when Russia reduced its oil deliveries to Czech Republic, without explanation, after the Czech government had signed an agreement with the United States to place missile defence systems on Czech soil (Gerrits, 2008). Czech Republic learned their lesson from the Ukraine crisis and according to my interview with Vaclav Trejbal², the groundwork for the future supply and transit diversification was laid during that time. The threat of Russia cutting of their supply prompted them to increase their gas security further in terms of diversifying away from Russia. In the energy policy paper, the threat of supply disruption from Russia is emphasised, confirming the view Czech Republic has of Russia, as an unreliable partner and a threat to their gas security in form of supply (Czech government, 2014a). The threat is elevated to the level of national security threat,

² Vaclav Trejbal is an energy policy expert currently working at Czech Confederation of Industry.

indicating that Czech Republic securitises the supply and transit diversification. This is also due to the current conflict in Ukraine and the risk of the transit route through Ukraine being restricted or interrupted. However, it should be noted that Czech Republic, in present time, lifts the issue of supply and transit diversification, but they do not take any extraordinary measures. Therefore, it cannot be said that they fully securitise the diversification, which more resembles McGowan's (2011) point that countries sometimes elevate matters to the level of national security or existential threat, but they do not take extraordinary measures to fully securitise an issue.

The turn away from Russia can be seen in the new contracts on the German market as well as the construction of the interconnectors with Austria and Poland, which will be able to provide them with more gas if needed, especially during times of crisis. The interconnector with Poland, Stork II, is planned to provide LNG from the Swinojskie terminal which will diversify Czech Republic's gas supply further (Czech Government, 2014a). However, it should be noted that the Stork II project has faced problems. It was close to being abandoned last year, but after efforts from Czech Republic, the project was formally confirmed by a bilateral memorandum (which is not legally binding), although the project is progressing slowly (Euractiv, 2016). Czech Republic has securitised the diversification of supply and transit routes through a discourse and has made it one of its top priorities in regard to national security, but the actions taken have not been extraordinary. In the national security strategy (2015, p. 21) it is written that *"...the Czech Republic avoids strengthening the influence, anywhere in the energy sector if those entities, countries or regions on whom Czech Republic is significantly energy dependent"*, a clear nod to Russia and how Czech Republic is unwilling to give them more influence. The EU also funds these projects as they are Project of Common Interests (PCI) and therefore increases the overall gas security of EU. As is mentioned by Schulzova (2015), the conflict between Russia and Ukraine the last years have reinvigorated Czech Republic's focus on energy independence through new interconnectors, and both diversification of supplies and transit routes have been elevated to the national security level through a clear discourse. While the discourse reveals the urgency of the matter, the actions taken can be seen as purely market based and rational, and no extraordinary measures have been taken in this regard. This is supported by the interviews conducted in Czech Republic, where it is mentioned that while the Czech government is wary of Russia

and do not want them to have too much influence, they conduct business as usual. See table 1 for a summary of the suppliers to the Czech gas market.

Table 1. Natural Gas suppliers to Czech Republic

	Russia	Norway	Germany	CZ-PL Interconnector	CZ-AT Interconnector³
Start of supply	1967	1997	⁴	2020	2020
Volume of supplies (bcm/year)	5	3	0.571	-	-
Share of supplies (%)	59	35	4.5	-	-
Transit countries	Ukraine, Slovakia	Germany		-	-
Start of contract	1998, 2006 ⁵	1997	Short-term contracts	2020	2020
End of contract	2035	2017		-	-

In contrast to Czech Republic, Hungary relies on Russia for almost 80% of its gas consumption, with the rest coming from former Soviet Union states, Germany, and France (IEA, 2011). However, Hungary has a large domestic production which covers roughly 20% of their consumption. In comparison, Czech Republic has domestic production which covers 1-2% of the annual consumption (Vlcek and Cernoch, 2013). Hungary's contract with Gazprom ended in 2015 but was extended to 2021, to make up for unused take-or-pay (TOP) volumes in recent years (REKK, 2016). While Hungary import gas from the Baumgarten gas hub in Austria, that gas is mainly Russian gas in form of Gazprom, and is mostly based on short-term contracts.⁶

Hungary managed to overcome the Ukraine crisis without any severe consequences due to their large gas storages, but the diversification issue gained new prominence after the crisis. Hungary started the construction of interconnectors with

³ The numbers in this column is hypothetical. If the decision to invest is made in the near future (1 year), it is reasonable to expect a start of operation by 2020.

⁴ While Czech Republic has imported from Germany for years, it is the last 3-4 years the import has grown considerably through short-term contracts and cheaper prices on the spot market.

⁵ The contract was signed in 1998 but was extended in 2006.

⁶ Interview with Andras Deak, 2017.

Romania, Slovakia, Serbia, and Croatia, and with reverse flow from Romania to Hungary, after the events in Ukraine (EC, 2014). These projects are PCI and therefore partly funded by the EU, indicating EU's influence on Hungary's gas strategy. However, these projects have had a limited effect on Hungary's gas security. The interconnector with Romania remains a problematic topic for the two countries since Romania is reluctant to export gas to Hungary, because there is little profit to be gained, as mentioned in my interview with Borbala Toth.⁷ The case went to the EC, which forced Romania to start exporting gas to Hungary, although the amount of gas exported is the least amount required to oblige by the EC ruling. While the interconnector with Croatia has been built, there is no gas coming from Croatia to Hungary. The gas would be LNG from the Croatian terminal, but the construction of the terminal has been delayed and according to the interviews conducted, Croatia is reluctant to export gas to Hungary due to political quarrels (Ministry of Foreign Affairs and Trade, 2016).⁸

Moreover, the interconnector with Serbia is idle due to technical and pricing reasons.⁹ The interconnector with Slovakia became commercially operational in 2015 and can provide Hungary 11 mcm/day (REKK, 2014). In the Hungarian energy strategy (2012, p. 128) it says that “...*the security of supply can be guaranteed by an infrastructure improved by...the Slovakian-Hungarian interconnector...*”, which would allow Hungary to maintain a steady gas supply if Russia would cut off their export. But, as with the interconnectors with Croatia and Romania, this also remains mostly idle. However, enough political will and with more investments, the Slovakian interconnector could be crucial for Hungary's gas security. A fully functioning interconnector with high capacity would allow Hungary to import gas from the western markets and especially Norwegian gas through Poland or Germany and Czech Republic. That would enable them to diversify their supply to a larger extent. These issues concerning poor regional cooperation go against Tarnawski (2015) analysis in which the countries of the V4 would cooperate more if they had more interconnectors and pipelines connecting them, something they now have. Instead, the V4 seems not to play a significant part in the gas security of Czech Republic and Hungary, with Vaclav Trejbal even calling it “obsolete”.¹⁰

⁷ Borbala Toth is a senior research associate at REKK,

⁸ Ibid.

⁹ Interview with two people from a gas company in Hungary, 2017. Wants to remain anonymous.

¹⁰ Interview with Vaclav Trejbal, 2017.

However, it can be argued that the construction of the Slovak interconnector was beneficial for Hungary since it opened up wholesale competition against the dominant supplier, and was also used as a bargaining chip for the Hungarian government during the 2015 renegotiation of the long-term contract with Russia to receive better gas prices (Rekk, 2016). Borbala Toth said in my interview that diversification was key to the national security strategy of Hungary, and something the government was pursuing.¹¹ It can therefore be argued that diversification of supply and transit routes are securitised topics, since the issues have been even more elevated since the Ukrainian crisis, which has prompted large Hungarian investments in the sector, something that was not done to the same extent in previous years. The constructions were also done rapidly, emphasising the extraordinary measures taken. The Slovak-Hungarian pipeline was also considered to be an energy policy priority for the government (Hungarian government, 2012).

The infrastructure is there for Hungary to diversify their supply and transit, but various problems exist which stops them from fully utilise it. During my interview with Andras Deak¹², he mentioned that Hungary has done its part of building the infrastructure with its surrounding countries to improve their gas security, but the biggest problem is the reluctance of the neighbouring countries to do the same. The interconnector with Croatia is especially an important issue. That interconnector would enable Hungary to get gas from the LNG terminal in Croatia which would increase their energy security since they would get gas from another supplier than Russia in large quantities, effectively diversifying their gas supply.¹³ According to Deak, Hungary could make an agreement with Croatia to import a large amount of gas, which would encourage the Croatians to finish the LNG terminal and the interconnector faster and then sell the gas to Hungary. The issue is however that Hungary has made no such move, and seems instead to be focusing on building the nuclear power plant PAK II. The nuclear power plant projected costs 12.5 billion EUR and is backed by a 10 billion EUR loan from Russia, and Hungarian taxpayers' money. It has also has gained approval by the EC (EC, 2017). However, it should be noted that Hungary would only

¹¹ Interview with Borbala Toth, 2017.

¹² Andras Deak is a senior research fellow at the Centre for Economic and Regional Studies of the Hungarian Academic of Science

¹³ Interview with Andras Deak, 2017.

be able to make such LNG deals with Croatia by controlling the energy sector. There would not be an economic rationale to import LNG from Croatia for private companies, since the price would be too high in comparison to importing from Russia, but more an issue of prioritising diversification over costs. Thus, Hungary seems unwilling to fully securitise their gas supply and instead focus on nuclear power. The cost of importing LNG from Croatia would be higher than to continue the imports from Russia, but simultaneously it is cheaper than building a new power plant for billions of euros. The situation can be related to McGowan (2011) theoretical arguments about how talking about energy security issues does not necessarily securitise them if convincing arguments are not made.

As previously mentioned, the need to diversify the supply and transit is emphasised in the Hungarian energy strategy, which makes Hungary's actions interesting. However, in the same document (2012, p. 27) it says "*Russia is Hungary's most important energy partner. Since Russia will remain the most important source of import on the long term, a balanced partnership between Russia and Hungary is an indispensable element of the security of supply.*". A highly relevant factor to point out here is that while gas constitutes around 30% of Hungary's total electricity generation, nuclear energy amounts to circa 40% (IEA, 2014). It is therefore difficult to isolate gas security from the overall security of energy in this matter. Nonetheless, the usage of natural gas is calculated to increase while that of nuclear power will decrease in the coming 5 years, putting the total usage of natural gas above that of nuclear energy (Hungarian government, 2012). Moreover, in 2010 natural gas was the largest primary source in Hungary with 38% of their total primary energy supply (TPES), with nuclear amounting to 16% (IEA, 2011). This can be compared to Czech Republic where natural gas constitutes 17% of the TPES (IEA, 2014).

One can argue that Hungary's decision to build a nuclear power plant with Russian help brings them closer to Russia. Amon and Deak (2015) suggest that the nuclear power plant would distort the Hungarian energy market and tie the country to Russia in many ways. The energy policy is based on the assumptions and "...old retrograde reflexes from Soviet times..." (Amon and Deak, 2015, p. 98) that the state needs to own the energy industry to control energy prices and provide cheap energy to the citizens at all costs, and the Russian state-owned companies are suitable for

this kind of energy policy. By building a nuclear power plant with Russia, Hungary is tying itself to Russia even further, and by extension their gas security is lowered since the diversification of supply is not fulfilled. As mentioned by Marušiak (2015), Hungary will seek closer ties to Russia, despite it going against the overall EU energy security strategies, out of self-interest and because of their closer identity to Russia since Russia is not deemed as a large threat. In Czech Republic's case, the opposite is the case where they prioritised gas diversification which led to the imports of Norwegian gas, despite it costing more. Similar case can be found in Poland, where they import Liquefied Natural Gas (LNG) from Qatar instead of relying on Russia for their gas. One of the main reasons for this is how the countries perceive Russia, whether as a threat or a business partner, or perhaps something of both but with an incline towards one or the other. If a country sees Russia as a threat, the price of gas becomes secondary to the policy of diversifying from Russia to shake of the dependency.

5.1.2 Gas companies operating in Czech Republic and Hungary

Czech Republic privatised their gas sector in early 2000's which influenced their gas security. While Nesko (2013) argues that the privatization led to a weaker gas security since the transit routes came in to the hands of private companies instead of the state, Muir (2002) claims that the decision to liberalise came as Czech Republic was seeking to harmonise their energy sector standards with those in the EU. Despite the privatization being underway, the Czech government still had a say in some important matters. The Czech government first denied the Russians to buy a gas transit route in 1994, giving no reasoning for the decision (Jirusek, 2015). According to Jirusek (2015) the overall discourse of the Czech foreign policy at the time suggests the refusal to sell was due to historical experiences and reorientation towards the West, and selling it was politically unacceptable, echoing Guzzini's (2011) remarks regarding historical threats. The next offer came in 2002, after the start of the privatization period, but was once again refused for political concerns (Jirusek, 2015).

The suspicion of Russia during that time is highlighted since the Czech government sold the transit route to the German company RWE, despite the offer being worth the same amount as the Russian offer. During an interview with Martin Jirusek, it was mentioned that this was one of the times when geopolitical reasoning was behind

the decision.¹⁴ Russia was the main supplier of gas and it would have been unwise to sell the transit to them, according to Jirusek. The acquisition by RWE made them a major player on the gas scene in Czech Republic given that their subsidiary RWE Storage (now Innogy Storage) also control six out of ten gas storage facilities in the country (Vlcek and Cernoch, 2013). However, there was no fear of Germany as was the case with Russia, despite similar positions of influence. Recalling Gazzini's (2011) arguments about historical threats and their contemporary effects, this is an instance of the opposite. Vaclav Trejbal mentioned during our interview that German influence in Czech Republic is viewed positively since they promoted the eastern expansion of EU, created jobs, and most importantly does not misuse its position of influence, unlike Russia.¹⁵ The same reasoning is provided by Martin Jirusek, who emphasised how Russia are not hesitant to cut off supplies to further their goals.¹⁶

However, the concept of identity and Czech Republic's wariness of Russia cannot explain all their decisions. While Czech Republic may see Russia as a threat in some instances, they are clearly adopting a pragmatic approach to Russia. In all my interviews with experts in Czech Republic, it was mentioned that Czech Republic tries to adopt a business-like approach to Russia where the market decides. The Czech market is the most open and advanced in terms of competitiveness and organisation of all the V4 countries. The gas distribution companies are unbundled from the transmission system operator (TSO), gas trading companies, and gas storage operations, indicating a competitive market where the Czech government do not have as much influence as before (Osicka, Plenta, and Zapletalova, 2015). This gives Russian companies the ability to operate on the market, as is the case with VEMEX s.r.o., which is a Gazprom subsidiary and active in gas trading in Czech Republic (Jirusek, 2013). This makes economic sense since the gas market is liberalised, which gives Gazprom this opportunity.

Moreover, in 2016 Gazprom and the Czech company Moravske naftove doly Gas Storage a.s (MND Group), built a gas storage in Damborice which cost over EUR 90 million (Jirusek, 2013). Gazprom will utilise the storage at 90% for 15 years

¹⁴ Interview with Martin Jirusek, 2017.

¹⁵ Interview with Vaclav Trejbal, 2017.

¹⁶ Interview with Martin Jirusek, 2017.

with MND Group operating the storage, an agreement worth over 270 million EUR. This shows that despite Czech Republic being wary of Russia and not letting them have too much influence, they adopt a pragmatic approach when it comes to gas supply. The combination of a pragmatic business approach and a fear of Russian influence based on identity coincide with Leonard and Popescu (2007) categorisation of Czech Republic as a “Frosty Pragmatist”. The “Frosty Pragmatist” focuses on business interests but their approach to Russia is based on their values and identities, such as their promotion of democracy and human rights. However, during my interviews it was emphasised that Russian companies are able and allowed, with the Czech government remaining passive, to operate in the country as long as they are not trying to gain too much influence. It can be argued that by looking at historical examples, the Czech government would interfere if Gazprom tried to acquire transit routes or buy gas storages from Innogy. This can be related to the earlier notion by Guzzini (2011) where countries’ historical experience makes them more inclined to securitise certain aspects, such as this case with Russian companies operating within Czech Republic.

Despite Hungary viewing Russia in a more positive way than Czech Republic does, they are still wary of too much Russian influence. This can be seen when the Austrian energy company OMV bought a total of 20.2% of the shares in the Hungarian oil and gas company MOL in 2007 (Butler, 2011). The Hungarian government and MOL saw the attempted takeover by OMV as hostile, and their fear of potential Russian involvement was realised when OMV sold their share to Surgutengaz, a Russian company with close ties to the Russian government, in 2009 (Butler, 2011). This led the Hungarian government to develop protectionist legislation to help MOL maintain its independence and the government bought the shares from Surgutengaz, albeit 20% more expensive than what Surgutengaz bought them for. The Hungarian government had first sold its shares in MOL in 2006 to abide by EU’s privatisation regulations. The so-called “Lex-MOL” was specifically made to prevent foreign states from obtaining access to companies that Hungary deems to be of strategic national importance (Butler, 2011). This is an example where extraordinary measures were taken, since it went against EU regulations of governments having too much influence in companies, showing how Hungary deviated from the intersubjective

norms and securitised the issue. It was also done with speed, emphasising the importance of the matter.

The episode also shows how Hungary securitises the large national companies (MOL was seen as a “national champion”) by taking a larger role in them. However, the fear of Russia alone cannot justify the Hungarian government’s reaction to OMV’s sale of the shares to Surgutengaz. More likely it is because Surgutengaz would have been in a position no Russian or other foreign states has had concerning potential influence over strategic decision concerning gas, which would have an impact on MOL and subsequently Hungary’s gas security. This reasoning is strengthened due to the numerous cooperation between Hungarian and Russian companies in the gas sector, such as with the gas supply company Panrusgaz which is owned by Gazprom Export, Centrex Hungaria Zrt, and Hungarian Electricity Works (IEA, 2011). While Hungary sees Russian companies as partners in the gas sector, they are aware of their close connection with the Russian regime and are unwilling to give them too much influence in the domestic gas sector, and has proven their willingness to securitise issues that are of concern for them.

5.1.3 Gas storage

The importance of gas storage is emphasised in Czech Republic’s State Energy Policy (2014, p. 66) where it is mentioned that “*Security of supply will be maintained through the diversification of sources and transport routes and the development of storage capacities...*”. While Czech Republic have had gas storages for a long period of time, there was an increase after the gas crisis in Ukraine 2006 and 2009. These events proved the importance of gas storages and how the countries of Central and Eastern Europe, who mostly rely on Russian gas transited through Ukraine, can utilise these storages to increase their gas security. The storages allowed Czech Republic to continue their gas supply and they did not have to impose any restrictions to customers (Czech Government, 2014a). Czech Republic was ready for almost three weeks of gas disruption during the crisis, and the country also had enough storage to support its eastern neighbours as a gesture of solidarity (Binhack and Tichy, 2012).

However, the crisis proved that gas supply transited through Ukraine from Russia is never fully secure, and more gas storage was required to prepare for a potential bigger crisis in the future. As previously mentioned, during the interviews conducted in Czech Republic, it was emphasised that the Czech government learned the lesson of 2006 and 2009, and started to invest more in gas storages. Before the crisis, little thought had been given to gas storages and their importance.¹⁷ Russia's previous use of gas as a foreign policy tool and their willingness to disrupt the supply to other countries to force certain demands prompted Czech Republic to increase the storages to improve their gas security. In Czech Republic's state energy policy, maintaining a high gas storage facility capacity is a strategic priority saying "*...gas storage facilities, the importance of which increases sharply if supplies are interrupted*" (Czech government, 2014, p.15). The fear of disruption in supplies from the Russian routes elevated the natural gas storage to a national security level and made it an integral part of the national energy security, partly securitising the issue. As will be discussed below, extraordinary measures were also taken fulfilling the requirement for an issue to become securitised.

There are currently 9 gas storage facilities operating in Czech Republic. They are located in Haje, Dolni Dunajovice, Lobodice, Tverdonice, Stramberk, Tranovice, Uhřetice, Dolni Bojanovice, and Dambořice (Jirusek, 2013). A 10th gas storage, in Rozna owned by Česká Plynárenská a.s and financed by GSCeP a. s., is under construction and is expected to be completed in 2018 (GSCeP, 2017). The Dolni Dunajovice gas storage is used to supply the Slovak gas market (IEA, 2014). Retailers sometimes also uses the underground storage in Lab, Slovakia. Out of these ten, Innogy Gas Storage s. r. o. (previously RWE Gas Storage) owns six, which all are connected to the gas pipeline network and they are labelled as Virtual Gas Storage Reservoir and have a working gas volume of 2.9 bcm (Vlcek and Cernoch, 2013). Other operators are Moravia Gas Storage a. s., Moravske naftove doly Gas Storage a.s., and SPP Storage s.r.o., all Czech companies (Vlcek and Cernoch, 2013, and Sppstorage, 2017). A summary of the gas storages can be seen on table 2. In 2011, the overall capacity of the gas storages was around 3 bcm, which made up circa 1/3 of the annual consumption in the country (Vlcek, and Cernoch, 2013). With access to the gas storage in Lab, the capacity could reach 3.5 bcm. In 2014, the gas storage

¹⁷ Interview with Vaclav Trejbal, 2017.

capacities had been increased and could boast 3.5 bcm without the access to Lab (IEA, 2014). If the storages are completely full, they would be able to supply peak demand for approximately 50 days. Moreover, the Minister of Industry and Trade, Jan Mladek, have said there are plans to expand the storages even further. The aim is to have enough capacity to cover 50% of the annual consumption, which would amount to circa 4,5 bcm (Mladek, 2015, and Binhack and Jaros, 2011).

Table 2. Showing the gas storage facilities in Czech Republic.

Facility location	Operator	Capacity (mcm)	Operational ¹⁸
Lobodice	Innogy Gas Storage s. r. o.	177	1995
Tverdonice	Innogy Gas Storage s. r. o.	720	1975 (1983, 2003, 2012)
Stramberk	Innogy Gas Storage s. r. o.	480	1983 (1993, 2000)
Dolni Dujanovice	Innogy Gas Storage s. r. o.	900	1989
Haje	Innogy Gas Storage s. r. o.	72	1998
Tranovice	Innogy Gas Storage s. r. o.	530	2000 (2012)
Virtual Gas Storage Reservoir		2900	
Uhřetice	Moravske naftove doly Gas Storage a.s.	235	2001
Dolni Bojanovice	SPP Storage s.r.o.	576	1999
Dambořice	Moravia Gas Storage a.s.	460	2016
Rozna	Česká Plynárenská a.s.	180	2018

Source: Compiled by author

Since 2013, gas suppliers in Czech Republic are obliged to at least fulfil 20% of supply standards by storing gas in underground storages (EC, 2015). However, the obligation holds only in winter and the amount varies depending on the temperature of the month. One can see that the Czech government in the last years has securitised gas storages and elevated it to a new level in comparison to previous years, as mentioned in several interviews conducting in Czech Republic. The current crisis in Ukraine has prompted the government to invest more in gas storage facilities. However, it must be noted that the Czech government does not own these storages nor do they order the construction of them. What the government can do, however, is to give incentives for companies to build gas storages. During the interview with Vaclav

¹⁸ Year of expansions to the gas storages are in brackets.

Trejbál, it was emphasised that the government actively support the construction of gas storage facilities by providing certain incentives. The Czech government had for example granted the Dambořice facility an exemption from having to allow other gas suppliers to use it. However, that exemption was rejected by the European Court of Justice and the subsequent joint-appeal by the government and Moravia Gas Storage a.s., was rejected by the EC (EURlex, 2015). So, while the government securitises gas storages, it is done through the private companies operating the facilities. The companies must have economic incentives to build storages and operate them, something the government is willing to provide as it is deemed as important for their gas security. This can be seen as a deviation from intersubjectively accepted norms, and together with the pace the constructions took place after the Ukrainian crisis, it is an example of how the issue has been securitised.

Gas storage plays a similar important role for Hungary, where in the Hungarian energy strategy (2012 p. 27.) it says that “*The Hungarian natural gas storage capacities and their development contribute to the security of the supply of the entire region*”. While Hungary’s diversification strategy has not resulted in a large increase in the gas security, their gas storages on the other hand have proved to be a bigger success. Hungary’s gas storage capacity is approximately 7 bcm, and it is maintained at approximately 4 bcm, which can cover 2/3 of Hungary’s winter gas demand (Shaffer, 2015). Hungary has, as of 2017, the fifth-largest storage capacity in the EU (Butler, 2017). Most the gas storages in Hungary is operated by the state company MVM Group, who bought them from the German company E.ON in 2013, giving the government control over natural gas trading and storage (Lehotsky, 2015). The other gas storage is operated by MMBF which is partly owned by MOL Group in which the Hungarian government has a 21% share. A summary can be seen on table 3.

Table 3. Gas storage facilities in Hungary.

Facility location	Operator	Capacity (mcm)	Operational
Zsana	MVM Group	2170	1996
Hajduszoboszlo	MVM Group	1640	1981
Pusztaderics	MVM Group	340	1979
Kardoskut	MVM Group	280	1978
Szöreg-1	MMBF	1900	2009

Source: Compiled by author

This contrasts with Czech Republic where private companies are constructing and operating the storages. This is in line with Hungary's gas security strategy. In the Hungarian energy strategy (2012, p. 100 and 101) it is mentioned that *"...it has been demonstrated that public good and the national interests cannot be efficiently represented on a purely market basis"* and it is further suggested that the government should acquire minority ownership in energy companies, that the state-owned energy companies (such as MVM Group) should be strengthened, and that *"...a more definite, efficient and predictable government regulation is required..."* to assert national interests. Hungary therefore securitises the ownership of companies and a regulated market by indicating that without a large role of the state, national security would be compromised. This can be compared to Czech Republic, who has a more liquid and developed market and storage products are auctioned, where the government has less control over gas storages and no large shares in gas companies operating in the country. Since Czech Republic is more integrated in the EU liberalisation of the energy market, they do not have the opportunity, or is unwilling, to go against EU legislation, to gain a more prominent role. This is also emphasised in the Czech State Energy Policy (2015). The Czech Republic therefore supports and encourages certain projects rather than creates them, as is the case in Hungary, indicating a closer integration with the EU.

Hungary's gas storage capacity allows them to mitigate the negative effects of supply disruption, such as in Ukraine 2006 and 2009 when the Russian gas supply was cut off to Hungary. They, like Czech Republic, learned their lesson during

the gas crisis in Ukraine 2006. In 2006, the storage Szöreg-1 was built as a strategic storage site, to be used during a clearly defined emergency (Rekk, 2014). The Szöreg-1 storage is dedicated for household purposes only, but it has yet to be tested since it was not online by the time of the 2009 crisis. An interesting observation by Rekk (2014) is that countries who are more reliant on Russian gas imports build storages with larger capacities. However, low storage utilization is a factor in Hungary which can be tracked to overinvestment into storage from 2006-2010 (Rekk, 2014). The investment occurred at the same time the Hungarian gas consumption decreased from 14 bcm in 2006 to less than 10 bcm in 2013. Therefore, investments in gas storages remain a costly affair for the Hungarian government, but simultaneously it increases their gas security. In Czech Republic, the tariffs are reflective of the winter-summer gas price spread, while in Hungary the storage services are cheap, the total cost is the highest on route through Hungary which may also be a contributing factor to why the gas storages in Hungary remain underutilised (Rekk, 2014). Despite this, gas storage utility remains low in Czech Republic as well, and companies are now making a loss (Radiopraha, 2015). This might soon become a real concern for the Czech government which will need to keep creating incentives for gas storages to be built if they are to reach their declared aims, and it might prompt more state involvement or subsidies. This would make it a more expensive affair, but the Czech government has previously showed that they are willing to sacrifice price for higher security.

5.1.4 Summary

Czech Republic and Hungary's identity-based perceptions of Russia and the EU have affected the two countries gas security strategies. Czech Republic and Hungary have managed their gas security and their gas security strategies in different ways. While both have emphasised the need to diversify, only Czech Republic has done it to a larger extent with their imports from Norway. Hungary has developed infrastructure which can provide them with gas from elsewhere, but the interconnectors remain mostly idle at this point except for Baumgarten in Austria, which provides Hungary with gas from western countries. However, this interconnector has a low capacity and is not enough to meet the demands of Hungary. While Czech Republic uses a discourse of securitisation regarding the diversification of supply and transit, their actions imply the

securitisation process has not been fully implemented. This contrasts with their actions in the 90s where they supplemented their words with extraordinary measures.

Hungary has had the opportunity to diversify, with LNG gas from Croatia or Norwegian gas through various pipelines, but has opted for a nuclear power plant sponsored by Russia. However, they have securitised the issue through a clear discourse and with rapid actions after the Ukrainian crisis 2009, but their investments are yet to pay off. Czech Republic favours a closer EU integration while Hungary seems to lean closer to Russia in many instances. While both countries retain a pragmatic approach toward Russia and investments, they are simultaneously wary of Russia gaining too much influence in the gas sector, as can be seen with attempts to buy transit routes in Czech Republic and the “lex-MOL”-case in Hungary. The fear of supply disruption, mainly from Russia, has led a securitisation of gas storage which consequently has led to an increase in gas storage capacity in both countries. This has allowed them to be better prepared than previously for any potential crisis which may affect them. However, the gas storages are underutilised and companies operating them are now making a loss, something that will have future consequences. It is visible that in both countries, gas is a national matter and by extension one of national security. The link between statehood and gas is perhaps more visible in Hungary, but it remains in Czech Republic, albeit not to the same extent.

5.2 Domestic factors

While the securitisation of certain aspects of gas security in Czech Republic and Hungary has played an important part in their current situation, the securitisation process has created different interest for different actors. These interests can better be explained with the rational choice theory, since it touches on domestic issues. It is important to look at what domestic factors help shape Czech Republic and Hungary's different approach to gas security. From the interviews, it is notable that the countries domestic policies take different shape. In the previous chapter, it was mentioned that the Hungarian government takes a large part when it comes to the role of the state in matters of gas security, while the Czech government tends to leave it to the market. This was emphasised by the experts interviewed in both the countries who all recognised the different approaches by the states in this matter. Martin Jirusek mentioned that *"The diversified gas import portfolio and the fact that Czech Republic implemented the internal energy market rules is basically close to 100% of all what is happening in this sector. It is based on business as usual scenario"*¹⁹ which can be compared to what Judit Barta say about Hungary: *"The government wants to hold influence... They do not want to give up power through energy prices..."* This chapter will therefore look at the countries domestic policies and see why the Hungarian government takes a large role in the gas sector in comparison to its Czech counterpart, and what factors matter to the governments.

Even though both Czech Republic and Hungary are part of the EU, they differ greatly in their commitment to certain EU regulations and frameworks when it comes to gas security. According to my interview with Judit Barta²⁰, the Hungarian government wants the state to hold the influence in the energy sector and decide upon important matters and not the EU.²¹ The reasons for this seem to be multi-fold. Firstly, the matter of energy prices (and by extension gas prices) is a politically loaded subject due to its importance in national elections.²² The gas prices, or more importantly the low cost of gas for household consumers, is an integral part of the platform the major political parties run on, since approximately 70% of Hungarian households use natural

¹⁹ Interview with Martin Jirusek, 2017.

²⁰ Judit Barta is a retired financial analyst at GKI Energy Research and Consulting Ltd,

²¹ Interview with Judit Barta, 2017.

²² Interview with Judit Barta, and Andras Deak, and Borbala Toth, 2017.

gas as the primary fuel for heating, which can be compared to Czech Republic where 27% of households rely on natural gas for heating (Amon and Deak, 2015, and Czech Government, 2014). Secondly, it allows the Hungarian government to sign favourable deals with the Russia on natural gas and the construction of the nuclear power plant PAKS II. This contrasts with Czech Republic, where the gas regulations are not politicised and the deals with Russia are primarily done without the involvement of the state. The thesis will now turn to these two factors.

5.2.1 Gas price regulations

An International Energy Agency report from 2014 outlined that the regulated energy prices in Hungary were cut by 20% in 2013, with further cuts occurring in 2014, for both electricity and gas (IEA, 2014). In 2012, 3.66 bcm of gas was purchased under regulated prices, of which 88% were sold to household consumers. This did not come as a surprise, since Prime Minister Viktor Orban and his Fidesz party made the gas prices an integral part of his political campaigns, both in the 2010 elections and when he sought re-election in 2014 (Amon and Deak, 2015). Both times he succeeded. It is therefore reasonable to argue that the role of gas prices is an issue which can be seen through the lens of rational choice. Amon and Deak (2015) provide a clear case of how important the gas prices regulation is for the ruling government, but also how this focus decreases the overall energy security of Hungary. By aiming for ever-decreasing gas prices through regulations, Hungary omits other important factors that could improve their energy security, such as investments in biomass, geothermal, wind, and solar power. While the thesis seeks to analyse gas security, it often connects closely with the wider notion of energy security. As Safian (2015) suggests, Hungary could cope well without the planned nuclear power plant, Paks II, if they invested in the mentioned renewables, which could amount to 27% of Hungary's electricity consumption by 2030. While more people in Hungary seek insulation of their houses and solar panels on the roofs, it is not encouraged or made advantageous by the government (IEA, 2011). Instead, it seems like the focus is, and will remain, on the nuclear power plant Paks II and natural gas imports.

The actions by the Hungarian government makes Hungary more dependent on Russia, something that is unlikely to increase their energy and gas

security. Deak (2006, p. 45) summarises it as “*Hungarian energy security must be first of all cheap, and only subsequently secure*”. By relying on the people’s need to have access to cheap gas, Orban and his party will continue to gain votes in exchange, making a trade-off between energy security and continuation in power. Their aim to gain votes is also clashes with the EU, since the actions by the government are not compatible with EU law.²³ The lowering of gas prices have led to Hungarian households paying less for their gas than industrial users, which can be seen on table 4.

Table 4. Comparison of natural gas prices for households and industrial users

Natural gas prices for households (per Gj) (Euro)			Natural gas prices for industrial users (per Gj) (Euro/ECU)	
Years	Czech Republic	Hungary	Czech Republic	Hungary
2010	13.04	14.87	10.27	10.38
2011	15.12	15.57	10.45	10.74
2012	18.31	13.43	11.17	15.44
2013	17.80	12.01	11.29	14.61
2014	15.23	10.15	10.60	14.05
2015	15.95	9.80	9.97	12.96
2016	16.19	9.56	8.82	11.19

Source: Data gathered from Portdata at <http://www.portdata.pt/en/DB/Europe/Search+Environment/Table> [Accessed 17 May 2017].

The gas price regulations also have important consequences for the companies operating in Hungary. In my interviews in Hungary, three experts told me that the regulations are a non-profitable affair for the biggest energy company in Hungary, MOL (which the state has a 21% share in).²⁴ The negative, for the companies, consequences are further emphasised in IEA’s 2014 report where it is mentioned that the regulated prices in combination with special taxes and market intervention by the state, have led to network operators and energy suppliers suffering financial losses. This has had the effect of foreign utilities selling their businesses to the state, which further cements the previous arguments of the Hungarian state wanting to take a larger role in the energy sector. The regulations have therefore two significant results: 1) It allows the government to lower the gas prices to gain votes in elections, and 2) It worsen the conditions for foreign companies to operate in the

²³ Interview with Borbala Toth, 2017.

²⁴ Interview with Borbala Toth, Andras Deak, and 2 anonymous sources, 2017.

country, making it easier for Hungary to have a largely state-owned energy sector. This connects with Petracca's (1991) view of rational choice, where self-interest are the main drivers of actors.

In contrast with the Hungarian government, the Czech government is directed by market principles and fairly limited state involvement. In Czech Republic, the transmission operator is NET4GAS, a company that is owned by NET4GAS Holding s.r.o., who operates 2 630 kilometres of pipelines (IEA, 2016). NET4GAS gained its independence certificate from the Energy Regulator Office (ERO) in 2013 after ownership of the company RWE was transferred to HYX Czech, which was lately renamed NET4GAS Holdings (IEA, 2016). The owners of NET4GAS Holdings are Allianz Infrastructure Czech HoldCo II S.à.r.l., and Borealis Novus Parent B.V., who both own 50% (Net4gas, 2017). There is a visible difference between Hungary, where state-companies like MVM Group operate the transmission system, and Czech Republic, where large global companies play the major roles. This is supported by Martin Jirusek who says *"In the Czech Republic there is no central discourse that would dominate the sector stating it should be the state that should be in the driver's seat. You basically use the business as usual scenario. And there is no policy like...we should increase the state share in energy assets. The country subscribes to the Internal Energy Market Rules and this is the driving principle of the sector"*.²⁵ Also, the main distribution system operator (DSO) selling 83% of the gas, as mentioned in the previous chapter, is RWE Group (which Innogy, the operator of most the gas storages in the country, is a subsidiary of), emphasising the role of international companies. The gas market is in Czech Republic therefore driven by market principles and financial aspects rather than political agenda, as in Hungary. This can largely be attributed to the lesser role gas plays for households in Czech Republic in comparison to Hungary, which stops it from being elevated to a political issue, and is as two economists at a Czech gas company said "...Business as usual"²⁶.

However, like Hungary, the government of Czech Republic plays a part, albeit a smaller one than Hungary, in gas price regulations. It is the ERO, whose chairperson is appointed by the government, that regulates charges for gas transmission and distribution and charges for the market operator's services (IEA,

²⁵ Interview with Martin Jirusek, 2017

²⁶ Interview with two people from a gas company in Czech Republic. They requested anonymity.

2016). In the Energy Act of 2005 (p. 14 – Section 17, paragraph 6e and 6a) it says that *“The Energy Regulatory Office shall decide on... Price regulation based on special legal regulations...[and] The granting of a licence, amendment thereto or revocation thereof...”*. The charges for gas transmission are calculated from the adjusted permitted revenues for the TSO, and are allocated to the entry and exit points in the transmission system based on the anticipated use. The charges for gas transmission and gas distribution are integrated and are hence billed to customers as part of the distribution charge (IEA, 2016). Thus, like in Hungary, the government of Czech Republic plays a role in the regulations of gas prices, although it is not as big of a role as the case with the Hungarian government. This is further emphasised by Vlcek and Cernoch (2013) who argue that the gas sector in Czech Republic can be considered as properly regulated in terms of legislation, and that domestic and EU legislation do not contradict each other and do not deviate from the long-term course, which contributes to the stability of the sector. Basically, all EU directives have been adopted and implemented in Czech Republic's laws, further emphasising the Czech government's rational choice of integrating more with EU for market benefits and principles (Vlcek and Cernoch, 2013).

The main factors bringing gas prices down are instead the price of the imported commodity, the long-term contracts of gas, as well as the willingness of the supplier, in this case Russia. (Slaba and Gapko, 2011). This can be noticed in Czech Republic where their diversification of supply and shift to the western markets have allowed the price to decrease, which will be further analysed in the next section.²⁷ Both countries have gas prices below the average of the member states in EU, with Hungary being among the lowest. A summary of the changes to the gas prices for medium households in respective countries can be found on chart 1. The chart illustrates the decrease in prices since the election of Orban as the Prime Minister, revealing the rational choice of using gas price regulations for votes.

²⁷ Interview with Vaclav Trejbal, 2017.

Gas prices by type of user
EUR per gigajoule
Medium size households

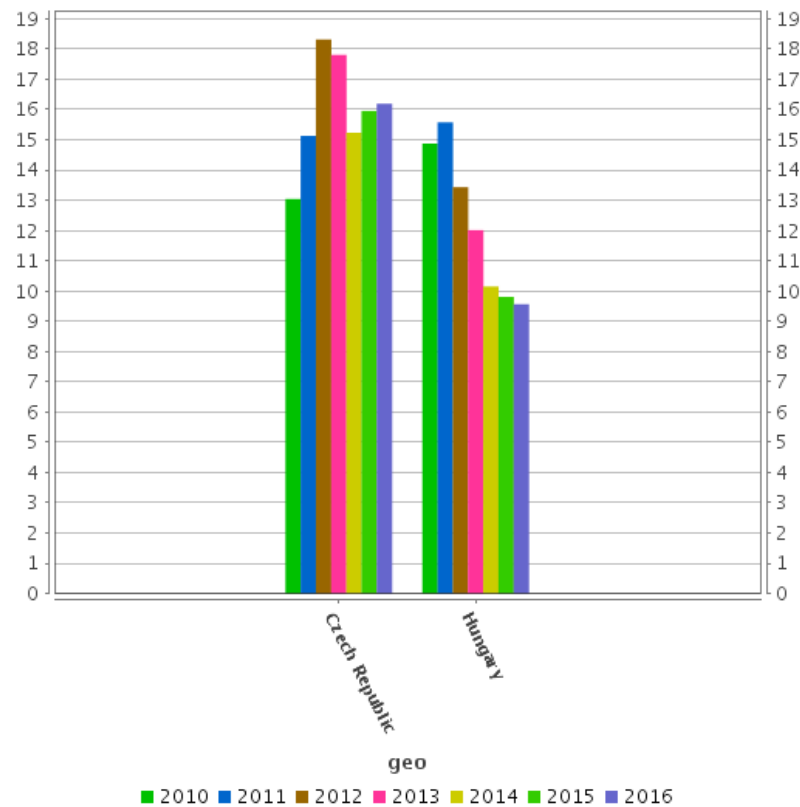


Chart 1. Data gathered from Eurostat at <http://ec.europa.eu/eurostat/web/energy/data/main-tables> [Accessed 15 May 2017]

For Czech Republic, the regulation of gas prices does not matter as much as for Hungary, since it is not an issue on the political level.²⁸ An important factor to take into consideration regarding this, is that in Czech Republic only 27% of the households rely on gas, which is a significant difference from Hungary. The issue is therefore not as vital for the ruling Czech government when trying to run for re-election. As such, it is rational for Orban to decrease the prices if it gives him and his party more votes in the elections, while it remain rational for the Czech government to allow competitive prices based on the market players. For Czech Republic, who favours further integration with the EU, it is difficult to have a state-ruled energy sector, but at the same time they do not want a single company to own the majority of the infrastructure and gain monopoly which would allow that company to set the prices. Therefore, it is rational for Czech Republic to pursue the market option where many companies compete which may decrease the price. They prioritise differently, which originate from the role gas plays in the two countries. Gas is not as prominent in Czech

²⁸ Interview with Martin Jirusek, 2017.

Republic as in Hungary for the households, which lessens its importance and stops it from being elevated to an election issue.

5.2.2 Contracts

The Hungarian state's large presence in the energy sector has allowed it to sign favourable deals with Russia in terms of gas contracts. The biggest gas import contract is between Gazprom and Panrusgas (of which the shareholders are LLC "Gazprom export", MVM Group, and Centrex Hungaria Zrt) which initially lasted from 1994 to 2015 until it was extended to 2021, with a decrease in cost for Hungary. MVM Group bought their share from E.ON in 2013, effectively making the state responsible for the negotiations of the contract. Lehotsky (2015) argues that Russia rewards certain behaviour and that Hungary's foreign policy orientation is linked to the energy prices Russia provides. An example of this is when Gazprom cut the price for Panrusgas in 2013 with 7-10%, just shortly before announcing that Russia signed an agreement with Hungary on the construction of PAKS II, and after Putin expressing gratitude for Hungary's support of the South Stream project (Prime, 2013, and Lehotsky, 2013). However, Lehotsky admits that it is near impossible to link price cuts to particular Hungarian foreign policy moves. There is nevertheless a link between the foreign policy orientation and more favourable deals. Hungary cut off the supply to Ukraine in September 2014 until November 2015, during the beginning of the crisis, just three days after a meeting in Budapest between the head of Gazprom, Alexei Miller, and Orban (BBC, 2014). Orban declared afterwards that *"In the next period we will need large quantities of gas ... We will receive this, I agreed this with Alexei Miller"* (Theguardian, 2014). An important factor in this matter is also that Hungary had, prior to the meeting, requested Gazprom to fill the gas storage capacity since the state-company MVM lacked the necessary funds (Amon and Deak, 2015). This episode culminated in the extension of the long-term gas contract until 2021, in which the negotiations took place on the highest political level after MVM Group had bought E.ON's share of the initial contract. The concession of Gazprom in the long-term gas supply contract, with regards to price, were in line with the continental trend, but in the Hungarian case it goes beyond the average concession of the CEE (Amon and Deak, 2015). It had great political impact since it helped Orban with his gas price reduction,

his major promise in the 2014 election. The interests of the ruling party and Orban seem to match the geopolitical interests of Russia, making the relationship between the countries mutually beneficial.

In terms of contracts, there is also a visible difference between Czech Republic and Hungary. The Russian gas import contract was signed between the state-owned company Transgas and Gazexport (part of Gazprom) in 1998 and was later extended in 2006 to 2035 (Binhack and Tichy, 2012). During the privatisation period however, RWE bought the government shares in 2001 and Transgas became RWE Transgas (Vlcek, 2013). In contrast to Hungary, it is therefore an international company being responsible for the negotiation and import of Russian gas. Moreover, it was also Transgas that concluded the contract with Norway in 1997, making RWE Transgas an important player in the Czech gas sector. However, these long-term contracts limit the implementation of EU liberalisation matters since they were signed before the liberalisation period. Since the greatest part of natural gas is provided through long-term contracts, the growth of new traders would face the fact that the same gas is being traded only with more mediators in between. At the same time, long-term contracts provide stability and guarantees to both exporters and importers. While RWE is a strong and stable European company, having the entire transit network, most of the natural gas storages, as well as most of the contractual gas in one company is not without risks to Czech Republic's gas security. That RWE might abuse its dominant position, despite them being seen as reliable and trustworthy, should not be discounted too easily. Although, with RWE being the major player, the risk of bankruptcy or sale of the pipeline network for financial reasons can be considered as low (Vlcek, 2013).

5.2.3 Summary

As have been described and analysed, Czech Republic and Hungary have adopted different strategies when it comes to gas security. Czech Republic favours a more integrated EU, complying with the EU energy regulations, while Hungary remains wary of further integration and wants a larger role for the state in the energy sector. The different approaches reflect what they consider to be rational. One major reason for Hungary to have a state-owned energy sector is to be able to control gas prices, which allows the government to keep gas prices as an electoral issue, providing Orban and his party with public support. The willingness to decrease the overall energy security

to achieve cheaper energy, is rational for the government and a tool to remain in power. In comparison, Czech Republic favours a liberalised market in compliance with EU regulations. The gas prices remain competitive and it is “business as usual” for the government, showing their pragmatic approach. The two countries’ geographical position as well as the role natural gas plays in the domestic sector, are major factors contributing to these policies. Czech Republic’s position has allowed the country to conduct gas trade with the western markets, with gas coming from Norway through Germany. In contrast, Hungary has remained dependent on Russia, and their interconnectors with their neighbours to the east have made them a target for Russian influence, as with the case of cutting of gas to Ukraine. The role of natural gas is of greater importance in Hungary however, since 70% of all the households use gas for heating, in comparison to Czech Republic where the number is 27%. The role of natural gas therefore becomes more prominent in the political debate, with the political parties using it as an electoral tool.

6. Conclusion

The aim of this dissertation was to understand why two gas-import dependent CEE countries, Czech Republic and Hungary, with similar backgrounds, have adopted different gas security strategies. It has tried to do so by utilising securitisation theory as well as rational choice theory, in combination with Mill's method of difference. Gas security was defined in the literature review as 1) the availability of gas, 2) the adequacy of capacity to meet demand, and 3) affordability, and it was measured by looking at the factors of supply and transit diversification, gas storages, and companies operating in the country.

The thesis began by looking at the identity-based perception and how Czech Republic and Hungary perceive their main supplier, Russia. While Czech Republic securitised the diversification of supply and transit routes in the 1990s, they have not done so to a larger extent in present time. The Czech government has utilised a language of securitisation, where the dependence on Russia was deemed to be a national security issue, and a top priority for their energy policy. However, this has not been followed up by extraordinary measures, which is a prerequisite for an issue to be securitised. They have adopted a more pragmatic business-mind approach, which was confirmed during my interviews with Czech experts. This contrasts with Hungary who has securitised the issue through major investments after the Ukraine crisis in 2009. The investments were also done rapidly as to not fall victim to supply disruption again. However, the infrastructure remains underutilised and many interconnectors are idle, which have not led to a large increase in their gas security. Hungary identified the dependency on Russia as a potential threat to their gas security, but has emphasised the need to maintain good relations with Russia because of their role as their most important energy partner.

Both countries have securitised gas storages. Czech Republic has done so through an extensive security discourse and by giving incentives to private companies to construct and operate such storages, by trying to go against EU regulations. The Hungarian government on the other hand owns the gas storages through state-owned companies, and they have also seen the construction of new storages, like the Szöreg-1 strategic storage. Hungary has securitised the gas sector to a large extent by securitising the major companies in the country. While the market

in Czech Republic is liberalised and companies privatised, and the government does not take a large role, the Hungarian government has shares in several important companies such as the MVM group and MOL. The lex-MOL episode is noteworthy since the Hungarian government bought back shares from the Russian company Surgutneftegaz to a high price in order to protect it from foreign influence, something that goes against the EU liberalisation regulations.

The securitisation theory allowed thesis to examine and analyse the divergent gas security strategies of Czech Republic and Hungary, and how they have handled some of the issues they faced. However, the securitisation process created different interests for different actors, which were then pursued rationally. For Hungary, the role of gas price regulations became a crucial factor for the government and Prime Minister Viktor Orban. Many of the households in Hungary are reliant on gas for their heating, and therefore the gas prices have been an electoral issue, something that Orban has pursued rationally to win elections. The gas price regulations have had two significant results: 1) It allows the government to lower the gas prices to gain votes in elections, and 2) It worsen the conditions for foreign companies to operate in the country, making it easier for Hungary to have a largely state-owned energy sector. This contrasts with Czech Republic where the government plays a minor role in the energy sector. Czech Republic are more integrated with EU and rationally pursues a market based approach. These two divergent strategies are emphasised heavily in the interviews undertaken, revealing the differences between Czech Republic and Hungary.

The large role of the Hungarian government in the energy sector has led to signing or renewal of contracts being held on the highest political level. This has had the effect of Russia rewarding certain foreign policy actions of Hungary, like cutting of gas to Ukraine and signing the Paks II deal, with reduction in gas prices. In Czech Republic case, the liberalisation efforts have led to the German concern, RWE, gaining a major role in the energy sector. While Germany has been seen as a reliant and trustworthy partner, the risk of RWE abusing its dominant position should not be discounted too easily. The two countries' geographical positions are a contributing factor to their different policies, with Czech Republic having an easier access to gas from Norway through Germany. Hungary's position has made them target for Russian

influence, where certain foreign policy moves by Hungary is rewarded with lower gas prices from Russia.

Czech Republic's gas security is relatively high in comparison to many other CEE countries, considering their diversification of supply and transit routes, as well as their vast gas storages. However, they are vulnerable since the main gas company is located outside the country. This may influence the affordability as well as the availability of gas if a dispute would occur between country and company. The interviews conducted with Czech experts reinforce the belief that the gas security is above average in Europe, and high for a country with Russia as main supplier.

Hungary's gas security is lower than Czech Republic, but it is not as low as some authors would believe it to be. Their main concern is the lack of diversification, effectively making them dependent on Russia for most of their gas import. This affects the availability of gas to a large extent, especially if a disruption happens and their gas storages cannot adequately cover the demand. Otherwise, Hungary's gas storage is well above the average in the region and despite the increasing costs, they are increasing their gas security. The Hungarian government's control over the gas sector brings stability, and allows the prices to be pushed further down. The gas becomes affordable through their close connection with Russia. The thesis has shown that Russia plays an important part in Czech Republic and Hungary's gas security strategies through its willingness to utilise its natural resources as a foreign policy tool, as well in an indirect way by being perceived as a threat that needs to be countered through investments in gas security. Similarly, the EU plays a major role through its regulations and energy security proposals, such as the Third Energy Package.

These two cases represent a dilemma of many CEE countries, who are torn between diversifying away from Russia, while maintaining good relations with their major natural gas supplier. As this thesis has shown, there are numerous ways of dealing with this dependency, much of which depends on the perception of Russia as a threat or a partner, as well as the wish for closer integration with the EU.

6.1 Reflections on the thesis and further possibilities for research

This thesis has further developed the body of literature existent on similar countries and the different strategies when coping with import dependency. It has explored the importance of how states securitise different factors, which then leads to policy decisions regarding gas security. Moreover, the thesis has revealed how different governments action rationally, and how they sometimes lower their gas security to gain votes in elections and to benefit from reduced gas prices.

One of the main critiques which can be raised against the thesis is the usage of both securitisation and rational choice theories. By using these theories, the thesis neglects certain factors which some may deem important. The thesis has not extensively researched the geopolitical aspects of gas, as would have been the case if a neo-realist approach was chosen, nor has it fully explored the role of regional institutions such as the Visegrad Group in gas cooperation, as a liberal institutionalist theory would have done. Issues can also be raised regarding the generalisation prospects of two case studies. The generalisation potential of the findings is fairly limited due to the analysis specific to the two research countries, especially when the share of gas in the total primary energy supply is different. However, the results of this research can be useful in understanding similar cases, especially countries in the former Soviet Union sphere of influence.

Interesting prospects of further research could be to analyse the importance of the environmental factor in gas security, and its effect on the country-specific strategies. Additionally, a more in-depth research of the role of identity and how important the perception of Russia and the EU is when shaping the countries' gas security strategies, could be further extended to include all the Visegrad countries.

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Appendix

Name	Location	Relevance
Vaclav Trejbal	Prague	Energy policy expert currently working at Czech Confederation of Industry.
Martin Jirusek	Prague	Lecturer of the Energy Security Studies program at Masaryk University, who focuses on the role of Russia in the natural gas sector in CEE
Anonymous from gas company	Prague	Financial analyst
Anonymous from gas company	Prague	Financial analyst
Judit Barta	Budapest	Retired financial analyst at GKI Energy Research and Consulting Ltd
Borbala Toth	Budapest	Senior research associate at REKK,
Andras Deak	Budapest	Senior research fellow at the Centre for Economic and Regional Studies of the Hungarian Academic of Science
Anonymous from energy company	Budapest	Financial analyst
Anonymous from energy company	Budapest	Senior risk analyst