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Bachelor's thesis
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The concept of energy security in the EU-Russia relations: new
interdependencies

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Introduction

Because of the rising economic interdependencies and discussion on globalization, it is really common to explain different developments in the world politics through the lens of neoliberalism, and especially through one of the most influential neoliberal theories, the theory of interdependence.

The neoliberal theory of interdependence, created by the liberal institutionalists Robert O. Keohane and Joseph S. Nye highlights that a relationship between the two partners can be seen as interconnected or interdependent. Still, there is always a more powerful party and it leads to the asymmetry of this interdependence. Asymmetry refers to higher costs to one partner, thus making it more dependent and potentially be a subject to power from the other actor (Lilliestam & Ellenbeck 2011: 3382). In order to understand how partners influence each other, the sensitivity and vulnerability of both must be assessed. The theory stresses that more sensitive partners try to escape the interdependence and more vulnerable ones try to strengthen it (Keohane and Nye 1989: 12-13).

The theory of interdependence has been used in international political economy for some time now (Casier 2011: 497) and it is also suitable to talk about interdependence in energy relations and particularly concerning the issue of energy security. With the rising of overall demand for oil and gas and instability in many producer countries, relationships change rapidly between energy producers and consumers states, thus also affecting the balance of power in interdependent relationships (Umbach 2010: 1230). In these asymmetrical conditions, the issue of energy security inevitably rises. It is very important though, to consider not only the security of the supply, but also the security of the demand of interdependent partners. The theory of interdependence makes it possible to integrate the security of demand and supply with vulnerability and sensitivity of interdependent partners.

The EU and the Russian Federation are closely interdependent in terms of energy and logically, the issue of energy security is one of the most important aspects of the interdependent relations between the two (Tichy 2012a: 1). Although the relationship between Russia and the EU is interdependent, it is clearly visible that the EU and Russia have different approaches to its energy policies and derived from it, a different perception of the nature of their interdependence. Based on the theory of interdependence, European Union, due to its huge demand, might be considered really

sensitive and Russia due to its need to sell the energy products might be considered really vulnerable.

Approach proposed by this thesis focuses on the above mentioned interconnection between the two partners, the EU and Russia, which is clearly defined by the neoliberal interdependence theory. Based on the latter, the following hypothesis can be derived: *the issue of energy security in the relations between the EU and Russia rises because of the asymmetrical interdependence, with Russia as a supplier trying to strengthen interdependence due to its demand vulnerability, and the EU rather wanting to see the interdependence more negative due to its supply sensitivity.*

In order to prove the hypothesis, the paper tries to analyze and explain the different approaches to energy security through the energy policies of both the EU and Russia, and show that through its policies one partner wants to strengthen and another weaken interdependence. Then, by assessing the sensitivity and vulnerability of interdependent partners, the existence of asymmetry and the fact that it causes the issue of energy security to rise, can be proved. To ensure the main aim of this paper, following questions have to be answered: What are the objectives of energy security in the policies of both the EU and Russia and how do they relate to each other? What effect has the asymmetrical interdependence on the perception of energy security of both partners?

The theoretical framework of the neoliberal theory of interdependence is introduced in the first chapter. The second chapter applies the theory of interdependence to the case of energy and focuses on the issue of energy security through the neoliberal prism of interdependence. Following chapters apply this framework to an empirical case of the energy relations and the issue of energy security between European Union and the Russian Federation. For that, firstly, the objectives of energy security in the dialogue and policies of both the EU and Russia will be analyzed, and secondly, the level of energy security in the interdependent relations of the European Union and the Russian Federation will be evaluated.

1. Neoliberal theory of interdependence

Neoliberalism accepts that conflict remains a basic feature of world politics, although cooperation is to be encountered frequently in the international system as well (Proedrou 2007: 329). One of the most influential neoliberal theories is the theory of

interdependence (Binhack & Tichy 2012: 54) which is clearly presented by Robert Keohane and Joseph Nye.

Keohane and Nye (1989: 9) define interdependence as a situation in which “across state borders, intensive transactions (flows of money, goods, persons and information) are taking place, entailing certain expenses.” As they put it, interdependence in world politics refers to situations characterized by reciprocal effect among countries or among actors in different countries (Keohane & Nye 1989: 8). Since the actors have an effect on each other, this process includes gains and losses (Binhack & Tichy 2012: 55).

However, this interdependence is bound to be asymmetrical. Asymmetric interdependence can easily serve as the main source of power, because the mighty exploit the dependence of the weaker in order to gain benefits (Proedrou 2007: 332). Keohane and Nye (1989: 11) themselves stress that asymmetries in dependence is the exact reason why one actor can influence another, and less dependent actors can often use the interdependent relationship as a source of power in bargaining over an issue. It is precisely the asymmetry of the interdependence and the fact that potential costs are higher for one party than the other, that creates a potential source of tension (Casier 2011: 497). Interdependence, thus, is only a descriptive term that discloses mutual dependence (Proedrou 2007: 332).

An interdependent trading relationship can truly be highly dynamic. Already the threat of a disruption may be reason enough for one or both parties to prepare for future conflicts. The dependent actor will be especially sensitive to changes in perceived threat level and may take measures to reduce this dependence. Thus, the initial asymmetries of the interdependence as well as the development of the asymmetry in the future may result to serious conflicts between the partners (Lilliestam & Ellenbeck 2011: 3382).

An unequal distribution of gains and expenses lying at the heart of asymmetrical interdependence secures the source of power. There are two dimensions that are important for the understanding of the role of power in interdependent relations; these are sensitivity and vulnerability (Binhack & Tichy 2012: 55).

1.1. Sensitivity and vulnerability

For Keohane and Nye (1989: 12) sensitivity interdependence is created by interactions within a framework of policies. Sensitivity involves degrees of responsiveness within a policy framework (Keohane & Nye 1989: 12). In other words,

sensitivity refers to the costs that each side suffers when the other state does not offer it the benefits it should get from their relationship (Proedrou 2007: 332).

Proedrou (2007: 332) also adds that high sensitivity makes states understand the possible consequences of their interdependence on third parties and thus is a driver for change. It leads states to take up actions to reduce their dependence and to search for alternative schemes of cooperation that would lower the intensity of their dependence on third parties.

Vulnerability can be defined as an actor's liability to suffer costs by external events and it can only be measured by the costliness of making effective adjustments to a changed environment over a period of time (Keohane & Nye 1989: 13). Vulnerability thus, is the degree of weakness of an interdependent state if the other attempts to finish their interdependent relationship (Proedrou 2007: 332). Interdependent parties with relatively high vulnerability tend to cooperate and strengthen their interdependent relationship in order to bind the other side even more tightly into it and thus prevent any potential unilateral withdrawals.

1.2. Positive and negative interdependence

As explained by Keohane (1986: 8), positive interdependence refers to "exchanges of roughly equivalent values in which the actions of each party are contingent on the prior actions of the others in such a way that good is returned for good." Positive interdependence thus creates the situation, where both sides are willing to depend on each other (Belyi 2012).

Negative interdependence on the contrary results to the fact that partners would pleurably escape from a dependency (Belyi 2012). It happens, when a relationship cannot be considered mutually beneficial and from one side the partnership is based on self-interest (Keohane 1986: 8). The shift from one to another is certainly possible.

Positive or negative interdependence is at its widest scope the most clearly visible in the policies of the two partners. If one side's national regulations limit the opportunities for partnership to grow, there will be no progress in such relationship. In fact, policies often show how willing one side is to continue the positive interdependence or how eager it is to escape such interdependence.

To develop positive interdependence, a constructive dialogue between partners must be established. Probable cause of insufficient dialogue might be the asymmetry of interdependence. The threatened side often tries to reduce the interdependence by

creating additional requirements to the other partner or searching for alternative potential partnerships.

2. Application of interdependence theory to the issue of energy security

Energy can be understood as a commodity, which is traded on markets that are extremely interconnected. It creates situations, where actors become more and more interdependent. Tichy (2012a: 5) points out that the relative strength of energy interdependence can be measured by such factors, as energy trade balance, level of energy resources, possibilities of energy diversification and specific total energy consumption in the country.

It is important to stress, that interdependency is favored in many sectors, but while addressing energy, we speak about self-sufficiency. Hence, it is important to address the role of definition of energy security. As pointed out by Belyi (2003: 353), the rate of energy consumption has steadily been increasing, as well as the energy import dependency of many states, which lead to many conflicts in connection to natural resources. This had created the situation, where at some point the political aspect had to be included to discussion of energy issues. It resulted in the need for new terms, one of which is energy security (Casier 2011; 495).

2.1. Defining energy security

There are indeed many definitions of energy security and they need to be highlighted in order to understand how countries interpret their energy security, and stemming from it, when does energy security become an issue between two partners. Energy security may refer to “a reliable and uninterrupted supply of energy sufficient to meet the needs of the economy at the same time, coming at a reasonable price” (Jun, Kim & Chang 2009: 1896) or simply, the availability of a regular supply of energy at an affordable price (Costantini, Gracceva, Markandya & Vicini 2007: 210). Based on that definition, the European Commission (2000: 65-66) suggested four dimensions of energy security: physical, economic, social, and environmental; and also long- and short-term dimensions.

A physical dimension can be described with the situation when an energy source is exhausted or production is stopped, temporarily or permanently. The unsteady prices of energy products on the world markets, which in turn can be caused by a threat of a

physical disruption of supplies illustrates the economic dimension of energy security. Speculative price movements in expectancy of a potential disruption of supplies can also be a great problem, since it leads to panic buying even when supply and demand are apparently in balance. It results in sharp price rises, which directly affect business costs and the purchasing power of private consumers.

The instability of energy supplies may also cause serious social disruption. Since oil still remains vital for the functioning of the economy, any disruption of supply is likely to lead to social demands, and possible social conflict. Also, there are many environmental concerns about damage to the ecosystems caused by the energy chain. These concerns include accidents, such as oil spills, nuclear accidents and methane leaks, or results of polluting emissions (urban pollution and greenhouse gas emissions).

Also, the definition of energy security can be seen from a short-term perspective or a long-term perspective. In the short term, the concern is with the impact of an unexpected cut in supply or rise in price. In the long term, the concern is more with the availability of sufficient energy that allows stable and sustainable economic development.

Thus, based on previous definitions, it is clear, that interdependence theory can explain the issue of energy security in asymmetrical relations of two partners by measuring sensitivity and vulnerability of both actors. In the case of energy, sensitivity refers, for example, to reduction of energy supplies or withholding payments for the energy bought. On the other hand, an actor might be considered vulnerable if after a sudden end of an interdependent relationship, there is a lack of alternative sources.

The asymmetry of interdependence is determined by the difference between energy exporter and importer costs. The actor with the higher costs is the more dependent actor and may be subject to power from the other actor (Lilliestam & Ellenbeck 2011: 3382) and thus may face the risks of source dependence, transit dependence and facility dependence (Spanjer 2007: 2890). If both costs are equally high, the relationship is stable and no actor has power over the other (Lilliestam & Ellenbeck 2011: 3382). The key is that asymmetry of interdependence is the one that causes the issue of energy security to rise. Thus, it is important to take into consideration both, the demand and supply side.

2.2. Security of energy demand and supply

Kaveshnikov (2010: 586) believes that energy security is often analyzed in a very restricted manner - as security of supply only. He stresses that historically speaking, the concept of energy security was born in consumer countries which, naturally, were primarily guided by their own interests and concerns, and thus it tends to focus on the security of supply.

Still, analyzing security of supply separately from security of demand enhances risks for consumers in energy planning, and therefore both sides of energy security must be linked, since a reliable energy policy should integrate concerns of all actors involved. The same point has also been made by Salem-Haghighi (2007: 13), who stresses that the difference must be made between security measures on the demand side and those on the supply side.

To illustrate how complicated energy security issue can be according to division of demand/supply and sensitivity/vulnerability, the following matrix can be combined.

	Sensitivity	Vulnerability
Demand	Demand sensitivity	Demand vulnerability
Supply	Supply sensitivity	Supply vulnerability

Graph 1. Matrix of supply/demand and sensitivity/vulnerability in the energy sector; based on Casier 2011

In order to fully understand that the issue of energy security rises due to the asymmetrical interdependence, the thorough evaluation of national energy policies must be made, because for the future, it is vitally important to be able to implement measures that will allow an effective response to the threat from energy insecurity (Costantini, et al. 2007: 211). Still, most importantly, it is the national policies that make possible the evaluation of how strongly partners want to be attached to one another, thus evaluating if interdependence is positive or negative.

The similar patterns of interdependence are visible in the clearly interdependent relationship of the EU and the Russian Federation in the energy sector. If the foregoing chapter introduced the application of the theory of interdependence in terms of energy and the issue of energy security, the following chapters will focus on the case study of the EU-Russia energy relations and the issue of energy security in them.

3. The case of EU-Russia: energy security in national energy policies

The EU–Russian energy partnership is definitely based on mutual dependence, with vast majority of the EU’s gas imports coming from Russia and a large portion of Russia’s governmental revenues stemming from the export of natural resources to EU member states (Neuman 2010: 344). For Russia, energy, and especially its security, owns the central place in its foreign policy, while Europe has responded with several policies and projects aimed at decreasing energy dependence from Russia (Norberg 2009: 9). The European Union’s energy policy also seems to be less clear (Neuman 2010: 345) because of the diverse positions of the EU member states (Bozhilova & Hashimoto 2010: 628). All in all, Hadfield (2008: 232) finds that Russia and the EU symbolize polar opposites of the foreign energy policy spectrum.

The EU–Russian energy dialogue has not lead to any constructive result (Norberg 2009: 9), because it is composed of a series of interrelated, yet significantly diverse bilateral relations (Bozhilova & Hashimoto 2010: 628). The dialogue between the two has clearly been inefficient due to the radically different perceptions held by both sides of energy security (Hadfield 2008: 244).

This chapter analyzes partners’ main positions in their national energy policies, and the importance of the issue of energy security in them. Also, in order to understand possible reasons of energy security issues, a short review of overall tendencies in EU-Russia energy dialogue will be presented.

3.1. Energy security and interdependence in the European Union energy policy

The energy policy framework of the European Union consists of a series of regulations and initiatives with different objectives and affects various actors in the energy field (Oikonomou, Flamos, Zeugolis & Grafakos 2012: 177). Although efforts have been made to achieve a common EU energy policy, the Union is still stumbling upon the task of developing a common external energy policy (Neuman 2010: 345). Belyi (2011: 2) adds that EU energy policy cannot be understood without taking into consideration the complex nature of the EU system itself, which represents a combination of economic interests and competences of the European Community and the geopolitical views of its member states. Therefore, not only one, but several documents have to be taken into consideration.

It is crucially important to take into consideration “The Partnership and Cooperation Agreement”, which came into force in 1997. It stated the EU’s full-fledged partnership and readiness to continue its positive interdependency with Russia. This agreement provided a legal basis for ongoing political dialogue between Russia and the EU across a wide variety of areas, including energy (European Commission 1997). Scholars point out that although this agreement did not cover the issue of energy security and is often referred to as “fundamentally limited” (Hadfield 2008: 235), it can still be considered as the legal basis that defines bilateral political, economic and cultural relations between the EU and Russia (Bilgin 2011: 120).

An important attempt towards shaping common energy policy in the EU was "Green Paper on Energy Security" prepared by the European Commission’s Directorate General on Transport and Energy. Published in year 2000, the document was truly efficient in pointing out the extent of the EU’s energy dependency, especially in relations with Russia, claiming it to be rising (European Commission 2000: 22-23). Tichy (2012a: 7) sees the main goal of this document to increase the EU’s energy security by gradually bringing question of energy security under the competence of the European Communities, at the expense of member-states’ sovereignty. As pointed out by Dimitrova (2012: 24), this multilateral tactic employed by the EU in this Green Paper, may be viewed as the turning point in EU-Russian interdependency from positive to negative.

“European Strategy for Sustainable, Competitive and Secure Energy” was a Green Paper adopted by European Commission in 2006. The Green Paper called for implementing a European energy policy based on three main goals: sustainability (climate change), competitiveness (opening energy market) and security of supply (diversification of energy sources, ensuring access to energy) (European Commission 2006: 17-18). Exactly as the previous one, this Green Paper also argues that energy security can be obtained by constructing a ‘pan-European energy community.’ (European Commission 2006: 16). Many scholars believe that there is more in this Green Paper than visible at the first glance. Diversifying its energy mix from Russia refers to EU’s clear will to decrease or avoid interdependency (Dimitrova 2012: 25). Hadfield (2008: 242) stresses that the following Green Paper denies foreign policy implications of energy security and avoids the uncomfortable truth of Europe’s own energy market, which is rather problematic on both supply and demand sides.

The European Commission's 2007 strategic energy review "An Energy Policy for Europe" approaches energy security and competitiveness in the context of climate change. It indicates reductions in energy consumption and once again stresses sustainability, competitiveness and security of supply as core energy objectives for Europe (European Commission 2007a: 3-4). The other important document from the same year, "A European Strategic Energy Technology Plan" sees the security of supply as an inter-related challenge with climate change and competitiveness, which requires a coordinated response by the EU members (European Commission 2007b: 2). Da Graca Carvalho (2012: 20) believes that this plan indicates the shift towards approaching energy security in the strong relation with environmental concerns.

Probably the most important step towards shaping Common Energy Policy is the "Lisbon Treaty", which for the first time formally proposed to constitute a European energy policy in the context of primary law. Energy is addressed in the Lisbon Treaty in Article 194, Title XXI. EU energy policy is designed in a spirit of solidarity between Member States in order to create a unified energy market, to ensure security of energy supply in the Union, to promote use of renewable energy sources and to build the interconnection of energy networks in the EU (Treaty of Lisbon 2008: 108-109).

Thus, a pattern of asymmetrical interdependence with the Russian Federation is clearly marked in the EU energy policies. The shift to negative interdependence can also be spotted, with the EU's clear attempts to lessen Russia's influence by ensuring the EU's security of supply and attempts to diversify its suppliers and routes of delivery of energy resources.

Still, as much as a unified EU energy policy towards Russia is discussed, significant differences remain between the EU member states, in terms of both their policies and their dependence on Russia (Kratochvil & Tichy 2013: 391). Some member states still prefer bilateral ties with Russia over the common EU energy policy (Norberg 2009: 9), for example an agreement between Russia and Germany to build the Nord Stream gas pipeline, or the Russian-Italian negotiations on the construction of the South Stream gas pipeline (Kratochvil & Tichy 2013: 392). Although the importance of the European Union in reducing that kind of bilateralism has been growing, individual member states remain important players in the field of energy, thus giving a special touch to the issue of energy security for the EU.

All in all, Nowak (2010: 57) points out, that there is a need for a cohesive, EU-wide energy policy to ensure security of supply and reduce demand. It would mean

reducing the dependence of the European Union on foreign energy supplies, especially from Russia. Nevertheless, the actual creation of such a policy must overcome a few obstacles, including member states' wish to protect their sovereignty, protectionism of national industries, and different approaches to Russia among member states.

3.2. Energy security and interdependence in the Russian Federation energy policy

Scholars point out that Russian energy strategy is clearly defined by the state (Bilgin 2011: 120) and is often seen as an instrument of possible increase of Russian influence (Kazantsev 2012: 305). One of the most distinguished characteristic of Russia's energy policy is the fact that the state and Russian energy companies have developed a symbiotic relationship and firm's behavior often derives from Russian energy strategy while making investments in Europe (Bilgin 2011: 120). Thus, Russian energy policy has paradoxically combined two opposite tendencies: the development of competitive market elements and the increase of state influence (Tichy 2012b: 190).

Neuman (2010: 344-345) stresses that in order to protect future income flows, Russia tends to strengthen relations with individual buyers by signing long-term contracts, invest in the exploration of new gas and oil fields, build new transport routes and maintain existing ones, proliferate into the upstream parts of the energy chain such as consumer retail and prove itself as a reliable energy supplier. In return, Russia asks its partners to guarantee the security of demand for its energy products (Neuman 2010: 345). It means that generally, Russia would rather wish a positive interdependence evolving. These developments are also visible in Russian energy strategies.

"The Russian Federation's Medium Term Strategy" (1999) presented a far more vigorous role for energy than conceived of by the EU. For Russia, the ultimate energy goal, then, is a joint long-term energy policy in order to create a common European, and in the long run, Eurasian energy space, in which Russia plays a key role as an ultimate supplier (*Strategija razvitija otnoshenij Rossijskoj Federacii s Evropejskim Sojuzom na srednesrochnuju perspektivu 2000-2010 gody* 1999). Hadfield (2008: 235) sees this view as a delusional since on one hand it would increase interdependence between the EU and Russia, but the cost of it would be a shift of political power from Western Europe to Moscow.

"The Foreign Policy Concept of the Russian Federation" (*Koncepcija vneshnej politiki Rossijskoj Federacii* 2008), sees the European Union as one of the major commercial economic and foreign partners. Although it does not include the issue of

energy security, it still stresses the need to develop active dialogue with consumer and transit countries, once again highlighting Russia's willingness to strengthen the tie between the EU and itself.

All the major priorities and tasks of Russia's energy policy were formulated in "Energy Development Strategy of the Russian Federation." This strategy (*Energetičeskaja strategija Rossii na period do 2020 goda* 2003) defines the objectives of the Russian foreign energy policy. It stresses the importance of Russia's integration into the global energy resource system in the form of cooperation with foreign investors. It also sees the EU as one of the main partners and it seems as though Russia is eager to continue the dialogue and increase interdependence by inviting European investors to new energy projects.

"Energy strategy of Russia until 2030" (*Energetičeskaja strategija Rossii na period do 2030 goda* 2009) sets priorities for long-term strategic development of Russia's fuel and energy complex. In this strategy, energy is openly seen as a tool for regaining power in the international relations and as a mean of defense of sovereignty from external influences. The necessary level of extraction, the profits of modern technologies for extraction and investment in oil and gas fields and infrastructure are considered to be the crucial aspects of energy security. According to this strategy, energy security is not only the supplier's but also the consumer's business.

Thus, it is clearly visible that Russia would like to preserve a positive interdependence with the EU. In doing so, Russia still tries to bond itself individually with member states and preferably create bilateral ties. The future of this interdependence though seems quite unclear, since maximizing the profit and use of energy to achieve a dominant economic and political position in the world can hardly assure a vital partnership (Tichy 2012a: 13).

One of the characteristics of Russian politics aims at creating a "circle of energy relations" in its neighborhood, thus competing with the EU (Prange-Gstöhl 2009: 5301). It clearly marks a polar opposite to the previously derived attitude, because it is basically a wish to weaken Russia's interdependence with Europe by trying to diversify its energy partners. Unluckily for the EU, it creates a situation where the energy security of many Eastern European countries depends to a large extent on their relationship with Russia and thus on its energy policy.

3.3. Energy security and interdependence in the EU-Russia dialogue

Interdependence has created a strong relationship between the EU and Russia. Salem-Haghighi (2007: 301) points out that the ultimate goal of the energy partnership between Russia and the European Union is the integration of their energy markets, reform of the Russian energy industry and the incorporation of the existing rules of the European energy market in Russia. This clearly means that Russia needs strengthening as a secure and reliable supplier (Salem-Haghighi 2007: 298), showing the EU's concern about its energy security. The ultimate goal is, however, yet to be achieved, since the EU-Russian energy dialogue has been anything but productive.

The EU-Russia energy dialogue was initiated in the year 2000, but it never really gave any constructive result but presented a common ground for exchange of thoughts on energy efficiency, environmental security and investment (Norberg 2009: 29). Talseth (2012: 17-20) mentions that despite some achievement, such as securing the importance of long-term contracts, the energy dialogue still failed its initial task of defining a legal framework for the EU-Russia energy trade.

Although security emerges in the dialogue as one of the aims, for the EU energy is a discursive element, whereas Russian participation is based on energy as a foreign policy instrument (Hadfield 2008: 237). Seliverstov (2009: 11) also notes that Russia would hardly accept EU competition rules as an ultimate goal of energy partnership. It almost seems like the dialogue was bound to fail before it even started.

Still, partners have to consider that substantial interdependency is unlikely to vanish in the short to medium-term future (Pick 2012: 324). In this light, Russian initiative to strengthen interdependency is at some extent visible in the dialogue between the two partners. According to the EU-Russia Centre's Review (2009: 19) the Russian side expressed the wish to expand the scope of the energy dialogue and increase the frequency of meetings. A clear parallel is thus visible with Russian energy policy. As a supplier, it is of Russia's interest to expand its relation with the EU and increase interdependency.

As the foregoing chapter shows, energy policies of both the European Union and Russia differ significantly. Russia's energy strategy is clearly based on the state, but aims at increasing interdependency with the EU. On the other hand the EU tries to avoid even stronger asymmetrical interdependency with the Russian Federation in energy sector. Still, why is it so? To answer this question, the vulnerability and sensitivity of the two has to be evaluated with the help of the neoliberal prism of interdependency.

4. Asymmetry of interdependence as a cause of the issue of energy security in the case of the EU and Russia

Due to its scarce resources, the EU is facing a growing dependency on foreign regions not only for the supply of oil but also for the supply of gas (Kjärstad & Johnsson 2007: 869). Europe, being close to a large amount of gas reserves, will receive most of its gas supplies by pipeline at relatively moderate costs and Russia will remain the largest supplier by far (Lochner & Bothe 2009: 1527).

Russian Federation, on the other hand, possesses within its territory a wealth of hydrocarbons (oil and gas) that places it as a first-rate agent in the international energy scene. Russia is also one of the few countries in the world that possesses an integrated energy sector. It allows Russia to be quite independent of foreign agents (Mane-Estrada 2006: 3778). Having large resources makes it possible to sell them to the partners. European Union with its energy demand and geographical closeness makes a great partner to the Russian Federation.

All that makes the relationship between the two partners extremely interdependent since, as pointed out by Tsygankova (2012: 157) for example in 2005, Russia supplied natural gas to almost all of the countries in Europe. Baev (2012: 183) stresses though that the relations between the two counter-parts cannot be called stable and the issue of energy security will therefore remain relevant.

This paper suggests that the reason why energy security is stressed so often in the relations between the EU and Russia is due to the fact that the EU-Russia interdependence is asymmetrical. In order to understand this asymmetry in interdependence, both sensitivity and vulnerability of partners' supply and demand must be taken into consideration, since Proedrou (2007: 335) suggests that exactly these two factors can push the interdependent parties towards conflict.

This chapter thus analyzes how sensitive and vulnerable both partners are in terms of energy supply and demand. This analysis will make it possible to understand that the issue of energy security between the EU and Russia rises due to the asymmetry of their interdependence.

4.1. Sensitivity and vulnerability of the EU

The high degree of EU dependence on Russian natural resources has been driving the European Union to a number of moves aimed at reducing its sensitivity and vulnerability.

At present, the EU depends on external suppliers for more than 50% of its energy requirements, while natural gas is even imported to 64% (European Commission 2011: 24) therefore making the EU one of the world's largest energy importers (Helen 2010: 3). The EU's dependence on gas imports will rise dramatically and is expected to reach 80% in 2030 (European Commission 2007a: 10). Thus, it clearly indicates the EU's huge demand, and Russia with its biggest proven natural gas reserves is potentially the biggest supplier (Helen 2010: 4).

Molis (2011: 89) stresses that due to Russia's big proportion in gas supplies and gas consumption, Russia serves as an important engine for Europe's economic growth. By 2020 the EU will need to import up to 600 bcm¹ of gas, from approximately 400 bcm today, and at least half of this demand will have to be sourced from Russia (Weafer 2009: 22).

The following graph illustrates the EU's dependence on the import of Russian gas.

Exporter country	Share of imported gas by the EU
Russia	36%
Norway	29%
Algeria	14%
Qatar	13%
Nigeria	4%
Libya	1%
Trinidad & Tobago	1%
Egypt	1%
Other	1%

Graph 2. EU Natural Gas Imports in 2011; based on British Petroleum Statistical Review of World Energy 2012

¹ Billion Cubic Metres

Spanjer (2007: 2890) and Casier (2011: 498) point out though, that looking only at the Russian share in EU imports of natural gas might be misleading and thus the level of the EU's supply vulnerability can easily be overrated. If imports are used as a criterion it can easily be seen that the EU's dependence vulnerability is distributed highly unevenly over the member states. Mostly the new member states, who are historically connected to the Russian gas networks such as Romania, Bulgaria or the Baltic States, import nearly all of its gas from Russia. Some member states, such as the UK, Portugal and Spain, do not import any Russian gas. Indeed, the countries importing all their gas from Russia are highly sensitive and also considerably vulnerable, but it cannot really be stated about the EU as a whole (Casier 2011: 498-499).

Casier (2011: 499) concludes that although Russia provides 31% of the EU's gas imports, it does not mean, however, that all of this consumed gas is of Russian origin. In fact, some member states produce their own gas. This means that Russian gas imports provide around 25% of EU gas consumption, making it roughly a quarter. Even more, instead of measuring the share of Russian gas in the total EU gas supply, its share in the total primary energy consumption can also be measured. This share is only around 6,5%. Considering that only gas creates real dependence issues, since disruption of gas supply can cause deficit of this resource for consumers (Voropai, Senderov & Edelev 2012: 9), the EU's effective supply dependence on Russian gas has thus been overrated.

Also, the EU can hardly be considered extremely vulnerable due to the fact that it put some serious efforts to diversify away from Russian sources. The EU supported the construction of different pipelines that will enable Central Asian energy to reach the West bypassing Russia. In addition, the EU also promotes a number of other projects that will enhance energy deliveries from non-Russian sources (Proedrou 2007: 342)

To indicate not such a vulnerable nature of the EU, Proedrou (2007: 341) also stresses that the EU will highly unlikely find itself in the situation without any gas. Rather it is the dependency on a powerful monopolistic supplier that would put upward pressure on prices. Russia can decrease the quantities it offers on the market or demand higher prices for the gas it offers. This makes the European Union quite sensitive, which the EU tries to avoid with liberalizing its gas market.

The EU has made attempts to reduce its sensitivity by assuring a constant and stable supply, with the help of the energy charter. It would aim at facilitating the secure energy supply of the West with the energy resources from the East. Basically it would be a transit protocol, according to which the flow of energy would continue regardless

of any potential conflicts between states involved in the energy chain (Proedrou 2007: 341). Since Russia has not signed it, the attempts to reduce sensitivity in this sense, have so far failed.

It can be concluded that the EU's energy demand is likely to increase and with it, the concerns about the security of demand. On the supply side, the EU cannot really be considered as vulnerable as often stressed, but the level of EU's sensitivity is the one that should mainly be pointed out in terms of its energy security.

4.2. Sensitivity and vulnerability of the Russian Federation

Russia is the largest natural gas source, supplying central and south east Europe through the Yamal pipeline (Afgan, Carvalho, Pilavachi & Martins 2007: 2519) and its share increased even more with the construction of Nord Stream project. But as dependent as the EU is on Russian energy, the Russian side also deeply depends on the partnership with Europe.

Of course, Russia is the largest gas provider to the EU but on the other hand the EU consumes 90% of Russian gas exports, making the EU a powerful actor in the gas relationship with Russia (Le Coq & Paltseva 2012: 643). If Russian energy exports to the European Union were significantly reduced, Russia would lose an important part of its income. Even though the European countries represent only about 31% of Gazprom's² total sales volume (Gazprom Group 2013), in 2008 they accounted for 60% of its revenues (Söderbergh, Jakobsson & Aleklett 2010: 7829).

To illustrate the importance of the EU as a customer for the main gas supplying energy company of Russia, Gazprom, the following graph can be presented.

Customer	Share of overall exports
Domestic market	54,8%
Europe (incl. Baltic States)	31%
Commonwealth of Independent States	14,2%

Graph 3. Gazprom Group's gas sales structure in 2012; based on Gazprom Group 2013

² The main gas supplying energy company of Russia.

Since that kind of amounts of exported gas to the EU makes Russia very sensitive, to reduce the risks, Russia applies several strategies. Firstly, Russia tries to hold on to the European energy market by maintaining long-term traditional take-or-pay contracts. These contracts ensure gains for the supplier and steady supplies for the importer. Secondly, Russia aims at taking advantage of the opportunities that the partial liberalization of the European gas market creates. Gazprom tries to enter into and dominate the emerging spot markets, where an increasing portion of the gas destined for Europe is traded. Last but not least, Russia tries to avoid any third parties in their relationship with the EU. It is clearly visible in Russia's latest contracts with Central Asian states, in which Russia tries to maintain a leading position in gas transit (Proedrou 2007: 336-337). All of these actions create a situation where Russia is eager to make the bind with the EU even stronger.

Casier (2011: 500) adds that the demand dependence of Russia comes clear in its wish to reduce its economic dependence on the energy sector. Also, Russia has a lot to lose if it risks its reputation as a credible supplier. As a result of supply shortages in 2006 and 2009, the EU and Russia signed a memorandum on an Early Warning Mechanism in case of disruptions of in energy supplies. The Mechanism undoubtedly worked since Russia clearly "got the message" when the gas deliveries to Belarus were reduced in June 2010.

Thus, Russia displays considerable demand vulnerability (and at some rate sensitivity), exporting most of its gas to the EU (Casier 2011: 506). As a supplier, Russia would rather like the interdependence with the EU to be positive, since EU's future energy demand will be of vital importance to Russia (Konoplyanik 2012: 50).

Conclusion

This thesis used neoliberal interdependence theory on the empirical case of the issue of energy security in the partnership of the European Union and the Russian Federation, to prove that the issue of energy security between the two partners rises due to the asymmetrical nature of their interdependence.

Keohane and Nye's theory claims interdependence to be a situation in which across state borders, intensive transactions are taking place, entailing certain expenses for both partners. However, for one party, the expenses tend to be higher, thus creating

the asymmetrical interdependence. The asymmetrical interdependence, which is characterized by unequal distribution of gains and expenses, can create a situation when dependent actors can often use the interdependent relationship as a source of power. In order to understand the role of power in interdependent energy relations, the dimensions of sensitivity and vulnerability of two partners must be highlighted.

Sensitivity refers to the costs that each side suffers when the other state does not offer it the benefits asserted in policy framework. The aspect of vulnerability refers to the weakness of one partner, if the other attempts to finish their interdependent relationship. Interdependent parties with relatively high vulnerability tend to cooperate and strengthen their interdependent relationship (positive interdependence) whereas actors with high sensitivity reduce their dependence and search for alternative schemes of cooperation (negative interdependence).

In the case of energy, the theory of interdependence clearly states that the issue of energy security stems from the asymmetrical nature of interdependence of both partners. Energy security refers to the availability of a regular supply of energy at an affordable price, but it is crucially important to consider the energy demand as well. The dimensions of the energy demand and supply can also be clearly presented in the connection with the dimensions of sensitivity and vulnerability presented by the theory of interdependence.

Whilst, the relationship between the EU and Russia in the energy sector can be considered really interdependent, the discussion about the issue of energy security inevitably rises.

The European Union with its huge demand of energy sources often refers to Russia as the vital partner in the energy sector. Although the EU cannot be considered too vulnerable in their relations with Russia, it still suffers a serious amount of supply sensitivity. As pointed out by the interdependence theory, the partner with considerable sensitivity often wishes to weaken the interdependence, which is also visible in the case of the EU. The Union has made some serious attempts to reduce interdependence with Russia by attempting to diversify its suppliers and routes of delivery of energy resources, which is also clearly visible in its energy policies. It is thus not the overall dependence on Russia that seems to threaten European energy security, but rather the uneven exposure across the Member States that can truly harm the energy security of the EU.

Russia, on the other hand, possesses a huge amount of supplies and the main purchaser of Russian energy resources is the EU. Such strong bond with only one partner created the situation, where Russia can truly be considered very vulnerable on the demand side. The clear signs of Russia's wish to see the interdependence with the EU as positive are also quite obvious. As the main revenues come from the Union, Russia seeks ways to strengthen the relationship even more by wishing to engage in long-term contracts.

Hence it is possible to conclude that the hypothesis has been proved. The perception of energy security by both partners is strongly influenced by the asymmetrical interdependence of the two, with Russia trying to strengthen the interdependence due to its demand vulnerability and the EU trying to weaken it due to its supply sensitivity.

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Kokkuvõte: Energiajulgeoleku mõiste Venemaa ja Euroopa Liidu suhetes: uued vastastikused sõltuvused

Käesolev bakalaureusetöö analüüsib energiajulgeoleku problemaatikat Vene Föderatsiooni ja Euroopa Liidu partnersuhetes Robert O. Keohane ja Joseph S. Nye sõnastatud neoliberaalse vastastikuse sõltuvuse teooria alusel. Töö eesmärgiks oli välja selgitada, kas energiajulgeoleku problemaatika Venemaa ja Euroopa Liidu suhetes allub vastastikuse sõltuvuse teooria põhimõtetele, millest üldse tuleneb energiajulgeoleku problemaatika kahe partneri suhetes ning kuidas mõlemad osapooled suhtuvad vastastikku sõltuvusse. Töö käigus püstitati hüpotees: „Energiajulgeoleku problemaatika Venemaa ja Euroopa Liidu suhetes kerkib esile vastastikuse sõltuvuse ebavõrdsuse tõttu, kus Venemaa üritab tarnijana sõltuvust suurendada enda nõudluse haavatavuse tõttu, ning Euroopa Liit soovib pigem negatiivset sõltuvust enda tarnete tundlikkuse tõttu“.

Töö teoreetiline raamistik põhineb Keohane ja Nye teorial. Nende kahe akadeemiku väitel eksisteerib kahe partneri vahel tihtipeale vastastikune sõltuvus. Siiski on alati olemas mõjukam partner, mis tekitab vastastikuse sõltuvuse ebavõrdsuse. Taoline ebavõrdsus tekitab olukorra, mil võimekam osapool võib kasutusele võtta jõulisemaid meetmeid enam sõltuva partneri suhtes. Selleks, et mõista partnerite käitumist ebavõrdses sõltuvuses, on tarvis hinnata partnerite haavatavust ja tundlikkust. Haavatavus viitab partneri nõrkusele suhte katkemise korral ning tundlikkus ühe partneri nõrkusele teise partneri lepingutingimuste täitmatajätmise korral. Teooria järgi üritavad suurema tundlikkusega partnerid sõltuvust vähendada ning suurema haavatavusega sõltuvust tugevdada.

Kuna antud teooria on olnud rahvusvahelises poliitökonoomias kasutusel juba mõnda aega, saab selle kaudu seletada ka partneritevahelisi energiasuhteid ning paljuski aitab see aru saada energiajulgeoleku problemaatikast. Kuna energiasuhetes on vastastikune sõltuvus eriti aktuaalne, peab arvestama nii tarne- kui ka nõudluse julgeolekuga. Vastastikuse sõltuvuse teooria seob nõudluse ja tarnimise haavatavuse ja tundlikkusega, mis kokkuvõttes võimaldabki seletada energiajulgeoleku problemaatikat.

Venemaa Föderatsioon ning Euroopa Liit on energiasektoris teineteisest tugevalt sõltuvuses ning energiajulgeoleku küsimus on kahe partneri suhetes seega üpris oluline. Mõlema osapoolle energiapoliitikad on vaatamata tugevale seotusele siiski erinevad ning

sellest tulenevalt on erinevad ka kahe poole arusaamad, milline peaks olema nendevaheline vastastikune sõltuvus.

Euroopa Liidul on suur energianõudlus, mille rahuldamisel on Venemaa energial suur osa. Tihtipeale viidatakse Venemaa osale siiski kui ebaproportsionaalselt suurele ning just suhetes Venemaaga on energiajulgeoleku problemaatika üks aktuaalsemaid. Mitmete energiakatkestuste tõttu võib Euroopa Liitu pidada partnersuhetes Venemaaga tarnete osas küllaltki tundlikuks. Vältimaks tulevikus liigsest tundlikkusest tulenevaid probleeme, üritab Euroopa Liit vastastikust sõltuvust oma energiapoliitika abil vähendada. EL'i energiapoliitikas on selgelt sõnastatud soov tarneid mitmekesistada ning vähendada Venemaalt imporditava energia hulka. Siiski ei saa Euroopa Liidu energiapoliitikat pidada küllalt ühtseks, mistõttu sõltuvus Venemaa energiast ei vähene veel niipea.

Venemaa, kui üks maailma suurimaid energiasaaduste eksportijaid vajab enda energiale aga kindlaid ostjaid, milleks on juba aastakümneid olnud Euroopa Liit. Just seepärast, et enamik Venemaa tulusid eksporditavast energiast tuleb Euroopa Liidust, võib Venemaad pidada energiasuhetes Euroopa Liiduga küllaltki haavatavaks nõudluse osas. Kuigi Venemaa energiapoliitika on selgelt riigikeskne ning paljuski vastandub Euroopa Liidu energiapoliitikale, üritab Venemaa vastastikku sõltuvust Euroopa Liiduga veelgi enam tugevdada, sest teist nii tulusat partnerit Venemaal hetkeseisuga ei ole.

Sellest järeldub, et energiajulgeoleku küsimus kerkib Venemaa ja Euroopa Liidu suhetes esile eelkõige ebavõrdse vastastikuse sõltuvuse tõttu. Tarnete suhtes tundlik Euroopa Liit üritab ebavõrdset vastastikku sõltuvust vähendada, samas kui nõudluse suhtes haavatav Vene Föderatsioon üritab vastastikku sõltuvust veelgi tugevdada.